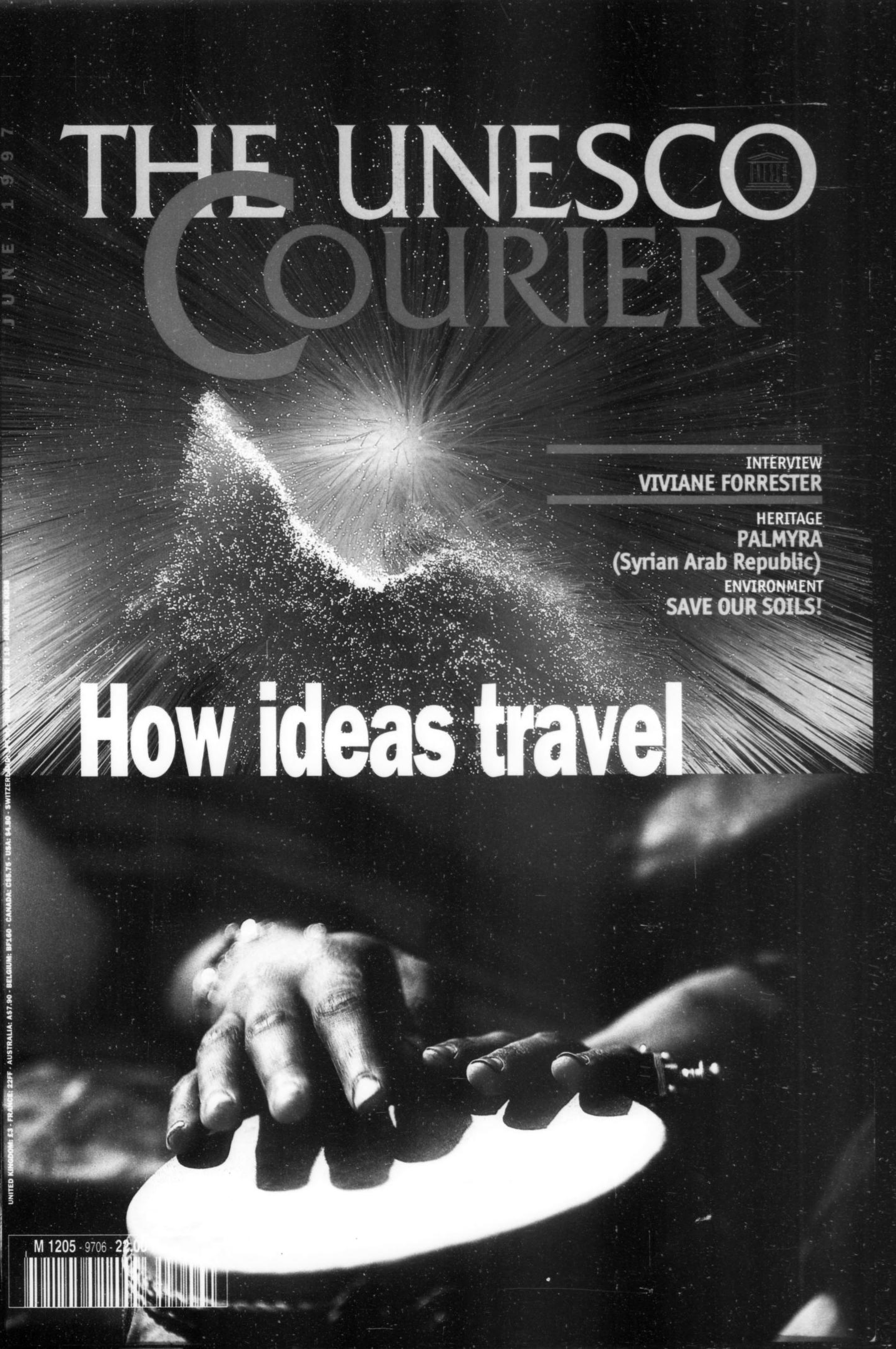

JUNE 1997

THE UNESCO COURIER

INTERVIEW
VIVIANE FORRESTER

HERITAGE
PALMYRA
(Syrian Arab Republic)

ENVIRONMENT
SAVE OUR SOILS!

How ideas travel

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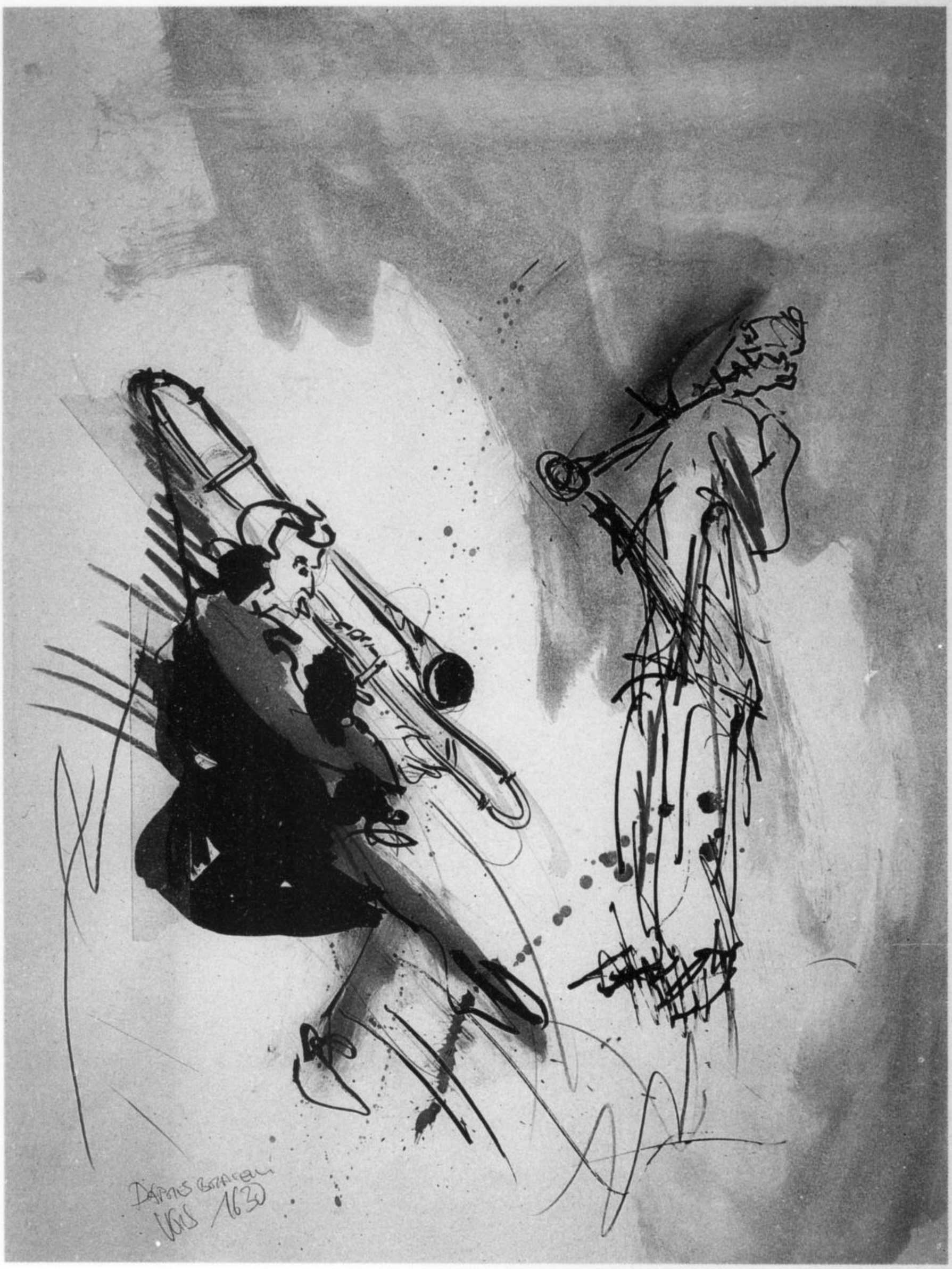

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MUSIC IN THE PLURAL

1995, mixed media (pencil, Indian ink, oil paint and adhesive tape on paper), 70 x 50 cm
by Martin Lersch

When music and painting meet, says German artist Martin Lersch, the results can be very surprising. In this sketch by him the left-hand figure is based on a black and white engraving made by Giovanni-Battista Bracelli around 1630. The figure on the right was drawn by the artist in 1991 at a concert given by British musician Courtney Pine during the International Jazz Festival at Viersen (Germany).

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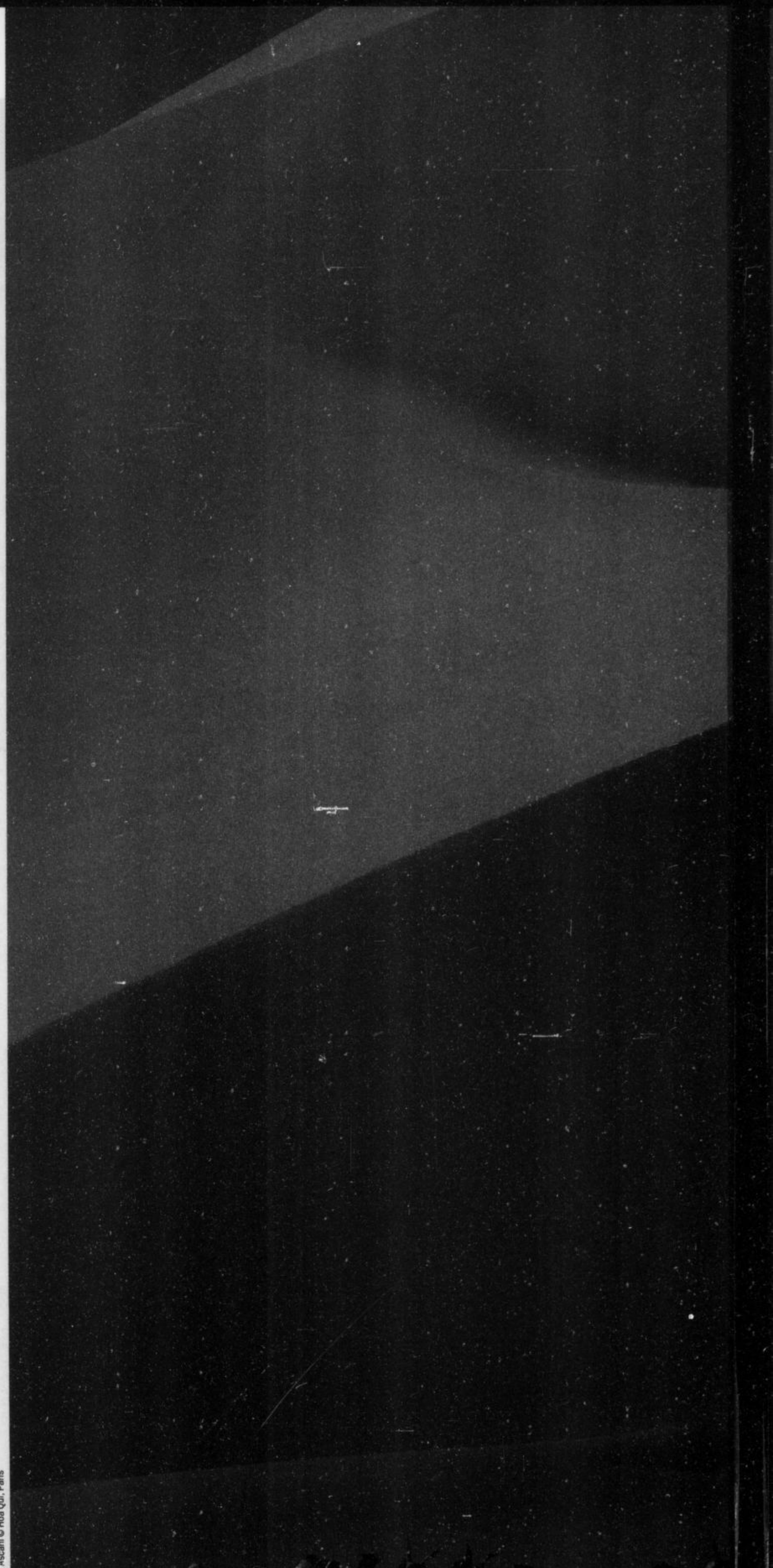

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How IDEAS TRAVEL

by Bahgat Elnadi and Adel Rifaat

In a recent *Unesco Courier* interview (February 1997) the French historian and philosopher Alain de Libera talked about the extraordinary way in which the idea of the individual travelled across the centuries, continents and cultures.

This idea, which originated in ancient Greece, was enriched much later in medieval Andalusia when it came into contact with an Arab concept of intellectual activity as a blend of abstract speculation and technical enquiry. This notion in its turn became the foundation of a revolutionary institution, the university, which spread throughout Europe and, between the Renaissance and the Enlightenment, gave birth to the modern concept of the human being. With the proclamation of the Universal Declaration of Human Rights in 1948, an idea whose first glimmerings had appeared 3,000 years before became a federating principle of the human community.

The present issue sheds light on some of the highways and byways along which ideas have travelled over the centuries. As well as tracing their geographical twists and turns it notes the increasing speed and range of the media—from caravans to computers, from clay tablets to fibre optics—whereby ideas have been communicated. It shows many-sided humanity gradually becoming aware of its unity with the emergence and transmission of ideas, principles and standards which deserve to be shared by all since they give everyone an opportunity for enrichment.

This path towards universality, with all its ups and downs, has been above all else a road to freedom. ■

Ideas have always followed in the wake of trade, war and religion

ON THE ROAD

BY FRANÇOIS-BERNARD HUYGHE

How do ideas travel? It may seem incongruous to ask such a question in a magazine that is published in several dozen languages and is read all over the world. If we make no distinction between the notions of representation, belief and information, and regard "ideas" very broadly as all those products of a human mind that can be appropriated by another mind, then we see that ideas do nothing but travel. It is no more surprising to find that there are practising Buddhists in California, that Euclid's theorems are studied in China and that Latin American politics are debated in Australia than it is for a European to watch a Japanese-made television or wear cloth woven in Pakistan.

Globalization, a notion which attempts to describe recent changes and which has itself travelled, designates the circulation of material goods as well as the intangible circuits of knowledge, patterns of thought and judgements. Current philosophical and political trends in the West strongly approve of the

Detail of an early 16th-century Venetian map of the African coastline.

© G. Dagli Orti, Paris

creative potential of the free flow of ideas that technology seems to promote. True, there is debate about which views ought not be allowed to spread, whether control of the media does not sometimes lend itself to intellectual manipulation, and whether, metaphorically speaking, the bad money of stereotypes, disinformation and triviality does not drive out good. But the question of *how* ideas travel arouses relatively little interest, so completely does it seem to have been solved.

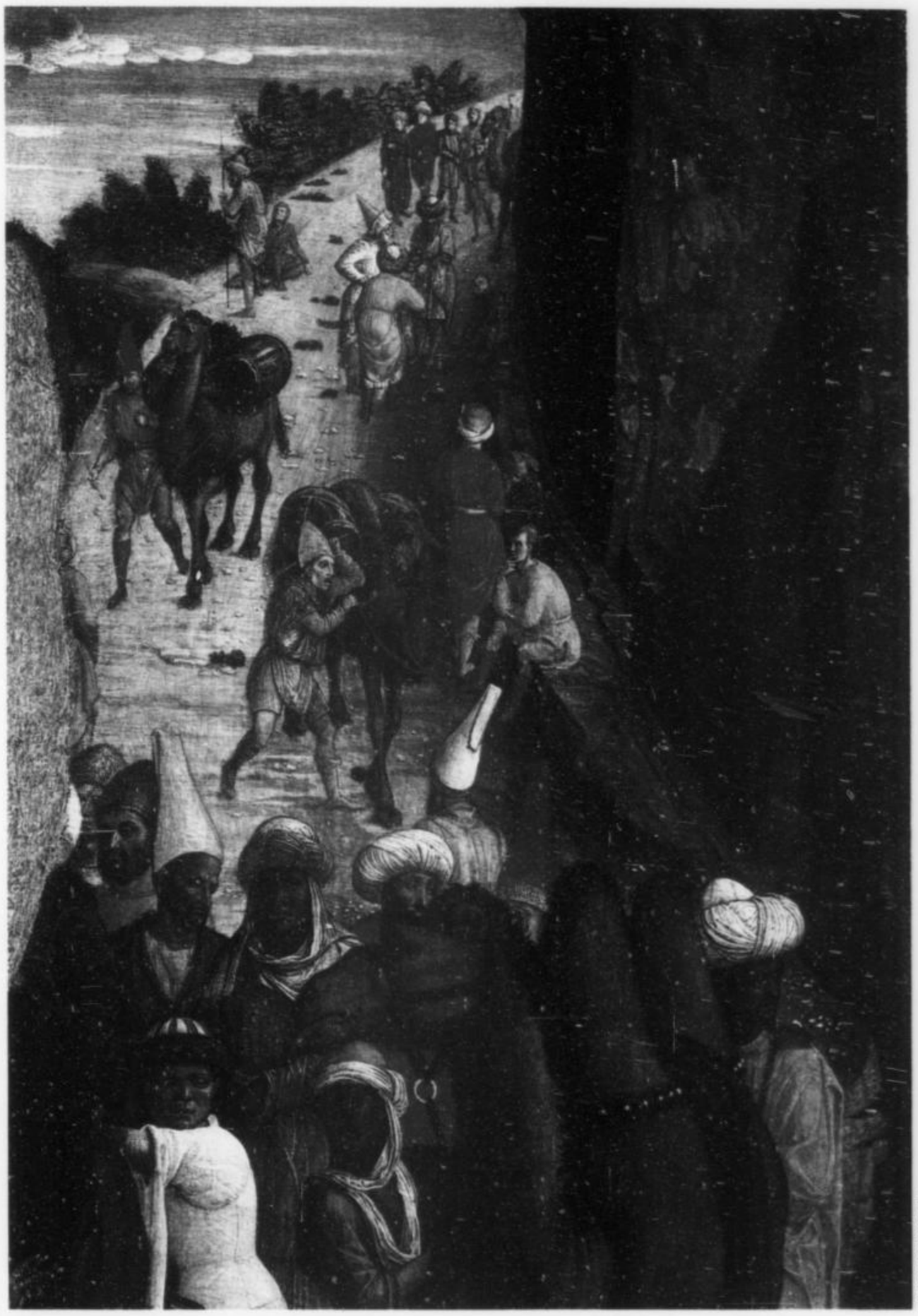
This is to pass lightly over the fact that an idea is an invisible entity made visible by traces left by its passage and that it cannot change the world unless it travels. Except in the necessarily limited case of direct verbal communication, obstacles and intermediaries come between the inception of an idea and the brain of the person who picks it up, sometimes much later or in a faraway place.

To conquer time and space an idea must endure and it must move. It must be stored in a memory and be transported. Of course, during the performance of these operations, which may take a few fractions of a second on the Internet or centuries in the case of certain religious beliefs—the idea changes. There may be many reasons for this change, including the vagaries of translation, distortions introduced by intermediaries or copyists, the format required for transmission, and other factors such as loss, censorship, interference and interpretation. Movement has changed the message.

Intellectual highways

Ideas spread along routes which are changed by technological innovation. Printing increased the number of books and made the preservation of ideas less dependent on the risks of copying, destruction, censorship or a broken journey. With the invention of the telegraph, messages for the first time travelled faster than people. On the airwaves words (and soon after, images) no longer travelled from place to place but covered whole territories, defying frontiers and walls. With telematics and the interconnection of millions of computer memories, recording, researching and transmitting data has become almost a single operation.

During most of human history ideas were conveyed in small numbers and with difficulty, peddled with a human escort moving slowly in dangerous conditions. In short, along roads. For centuries there was no difference between the movement of people and the movement of ideas and material goods. Consigned to manuscripts and illustrated by images or simply memorized by scholars or religious believers, ideas travelled on horseback or by camel, in the holds of ships or at walking pace. The range, the cadence of propagation and ultimately the success of the technology, scientific conceptions and religious ideas we have inherited can be explained by all the factors that have stimulated or handicapped travel by land or sea.



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The Adoration of the Magi **(detail), by the Italian painter Andrea Mantegna (1431-1506).**

UNESCO has rightly adopted the theme of routes to bracket together projects connected with cultural dialogue and cross-fertilization. These very ancient routes owe their names to a precious commodity that was transported along them: silk, iron, and even slaves. Other routes were determined less by trade than by the centre towards which they converged, e.g. Jerusalem, the holy city of the three monotheistic religions, and al-Andalus, the province where three cultures lived in peace.

The metaphor is unequivocal: by road comes all that is new, all that is exchanged and that changes us, all that transcends and transforms us; ▸

© G. Dagli Orti, Paris

Mexico City's first printing press was set up in 1539. It is shown here in a contemporary engraving.

▸ because of the road there is always a little of someone else in us and any attempt to make identity an isolate can never succeed. Such contacts are not, of course, necessarily pleasant or peaceful: invaders, persecutors, prisoners and deportees also arrive by road. But if movement distorts or alters ideas, the opposite is also true: conquerors assimilate the civilization of the defeated and the victims of slavery fertilize the cultures of the lands to which they are exiled.

And so, just as there are memorable places which symbolize the common past of communities, there are also memorable routes: geographical itineraries where traces of physical movement associated with mental change have survived. As well as the chronological mystery veiling the preservation from generation to generation of beliefs, patterns of thought, knowledge, references and other forms of representation, there is the geographical mystery associated with their movement, the movement of intangible things. The question of time is connected with that of geographical range. By following the tangible traces of intellectual transmission or the routes taken by groups of travellers we can learn more about the spread of iron or paper technology, of astronomy or the figure zero, of Buddhism or Islam, a legend or a form of music. We can also find out about what happened to them during their journey.

All thinking about the origin of cultures, their complexity, the dialogue between them, and cultural intermingling raises very precise questions. What kind of people travelled? How long did it take to travel and at what cost in terms of loss of human life? What languages did they speak? What kind of archives did they keep? What letters did they write? What images did they carry?

■ *Tinker, tailor, soldier, sailor...*

Some of the greatest travellers were soldiers. War encourages technological invention and stimulates mechanisms of transmission. As the victors settle in new lands, some populations are put to flight and others are deported. War also causes the intermingling of peoples, beliefs and knowledge. The conqueror is sometimes the first to understand the value of new information. Alexander the Great's troops were accompanied by scientific expeditions. The Umayyad armies brought paper-makers back from Central Asia. Tamerlaine spared from massacre the scholars, writers and artists he wished to enroll in his service. If espionage is considered as warfare waged by other means, we are beholden to it for the spread of many secrets in the field of technology (the most famous being that of silk manufacture), cartography and the sciences.

The routes taken by ideas also dovetail with those taken by merchandise. The quest for products yielding profits compensating for the time and risks involved in travel to distant parts has always been one of the main reasons for scattering to the ends of the earth people who were interested in setting up networks and organizing safe and frequent travel, and were in many cases adept at writing and curious about novelty.

Merchants do not seek to change the world or to describe it, and what they say or see is not always recorded or broadcast, but they spread ideas and information as a kind of by-product of their travels. More specifically trade has indirectly been one of the great vectors of religion. Getting together in foreign lands and practising their faith, traders have often made converts. Arab traders propagated the Qur'an farther afield than any of the Arab conquests of the first century of the Hegira. For reasons of security it was often wise for the preacher's itiner-

ary to coincide with that taken by the merchant. It is safer to travel with caravans or merchant ships to cosmopolitan cities where the religious message will get a better reception from an open-minded public. This also explains why Buddhist monks also followed trade routes.

The universalist religions are the third great medium whereby ideas travel, in this case with a deliberate purpose. Buddhism, Christianity and Islam define the corpus of canonical texts, the type of images and the kind of community whereby the preachers of the faith should spread salvation throughout the world. Such questions foment doctrinal disputes and even heresies. Should the Buddha's body be depicted? Should the Prophet Muhammad be painted? Should icons be allowed? Should the Qur'an be translated or the Bible be propagated? Which Sutras belong to the accepted canon? Who should interpret the word of the Prophet? Should monks devote themselves to their own personal nirvana or should they be responsive to the concerns of laymen? To what extent should Jesuits adapt the evangelical message to Chinese culture? The form taken by a religious "idea" transposed thousands of kilometres results from the theoretical and practical answer to these questions.

Ideas are imported as well as exported. A map of spiritual and intellectual poles of attraction, starting with centres of pilgrimage, must be overlaid on that of the propagation and transformation of ideas. People from all over the world meet and mix in Jerusalem, Mecca and Santiago de Compostela. There, and on much-used routes invested with a strong symbolic meaning, important cultural changes come about. For centuries students converged on the universities of Taxila, Bologna and the Sorbonne. Sometimes the inclinations of a prince or caliph attracted talented individuals, gifted scientists or rare manuscripts. Those who journeyed to the Library of Alexandria, the "house of wisdom" in Baghdad, and the court of Cordoba and the court of Roger II of Sicily, were not seekers after salvation or the fount of knowledge but bringers of ideas, philosophers, physicians, astronomers and translators who found material security and intellectual stimulation.

What we see here is a complex set of physical and mental barriers, topographical lines of force and human strategies which decides whether or not an idea crosses time and space, whether a piece of writing produced in a particular place and culture has an impact at the other end of a continent. Was propagation deliberate or accidental, due to expansion or attraction? Did an idea travel from one place to another slowly or as the result of a historical cataclysm? Was its journey governed by geographical constants or by the fortunes of war, by the attraction of ancient crossroads of civilization or by the discovery of a new route? To understand where we have come from, we still have far to go in retracing the highways and byways of the past. ■

The Mongol ruler Tahmaras, the "fully armed", with an Arab scribe. Detail of a miniature from the *Universal History*, a classic work by Rashîd ad Dîn (1247-1318).

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Manuscripts on the move

BY GERALD MESSADIÉ

Manuscripts travelled adventurously along the information highways of the medieval world

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Travellers arriving in Beijing. Miniature from a French version (c. 1410) of *The Travels of Marco Polo*.

The reproduction of the written word began long before printing with movable type was invented in the middle of the tenth century by the Chinese Pi Sheng. By the end of the third millennium of the pre-Christian era religious and political documents were being copied on clay tablets in the Near and Middle East. These copies were made for the ruling castes, and it is unlikely that they circulated beyond the borders of the kingdoms where they were produced, for they were of interest to few people. Later, copies were also made of famous literary works such as the ancient Mesopotamian epic of Gilgamesh, king of the city of Uruk. The story of Gilgamesh, who was deified and mythified after his death in 2650 B.C., is both a founding myth and the celebration of a hero. The cult of the hero was probably the reason why poems such as the *Iliad* and the *Mahabharata* were also copied several centuries later.

■ *Production, collection and preservation*

Fourteen sets of fragments of the Gilgamesh Epic have been found between present-day Turkey and Iraq. While language barriers do not seem to have been real obstacles to the circulation of manuscripts, no proof has survived to suggest that manuscripts crossed cultural frontiers. For instance, although Greek was spoken throughout the Mediterranean basin by the fourth century A.D., not a single fragment of the *Iliad* has been found either in Palestine, Carthage or in major centres on the Silk Route. The transport of a long piece of writing recorded on clay tablets must have been a laborious affair (the complete 3,000-line version of the Gilgamesh epic would have weighed several dozen kg). Even so, the spread of papyrus and parchment, which considerably lightened this burden (a long poem could have been recorded on a few *volumina* or scrolls), only seems to have had a slight impact on the communication of ideas and cultural transfer.

Early in the first millennium of the Christian era, literacy rates were still minimal in most of the world. Written texts were intended to be read in public, and this was not to everyone's taste. In the second century, for example, the Latin poet Juvenal complained that he had had to listen to readings of many an indigestible tragedy.

Manuscripts were highly prized by certain princes, who wished to accumulate as much learning—a magical commodity—as possible but were not very interested in transmitting it. In the fourth century B.C. in Alexandria customs officials seized all the books they found on ships and had copies of them made for

restitution to their owners. The originals were placed in the city's two great libraries, among the most fabulous of the ancient world, whose users were physicians looking for exotic remedies, navigators seeking maritime information, and minor poets on the lookout for pieces of obscure knowledge or material to plagiarize.

The first conclusion to be drawn is that the spread of culture via manuscripts was negligible until very late in Antiquity.

Approval, condemnation and destruction

Cultural barriers became slightly more permeable with the coming of commercial publishing in the strict sense, which was first practised in Rome around the first century B.C. Authors gave copyists the original version of a piece of work so that several copies could be made and offered to prospective buyers. These copies on parchment were relatively costly, and the copyist paid the author royalties based on the number of copies sold or on his estimate of the value of the work. The pages of parchment were covered with writing on both sides and then sewn together to form what is now called a codex, a book that was easy to carry.

Copies of works by Aristotle began to be found in Baghdad (where a Greek colony prospered) and those of Tacitus in Britain. But it would be an exaggeration to think that this form of publishing had inaugurated the free flow of ideas. The excesses of Imperial Rome gave rise to many pamphlets that were not to the liking of the emperors, and copyists who reproduced impertinent documents did so at their own risk. The censor's hand became particularly heavy after the reign of Constantine the Great.

In the fifth century almost all the works of the third-century philosopher Porphyry, whose writings were likely "to rouse God's anger", were destroyed. The works of the first-century historians Seneca the Rhetorician, Servilius Nonianus, Cluvius Rufus, Fabius Rusticus, Aufidius Bassus and nearly all those of Velleius Paterculus, have also alarmingly disappeared. There are excellent reasons to believe that a large number of copies of the work of Heraclitus, one of the greatest thinkers of ancient Greece and perhaps of all time, were in circulation until the second or third centuries. All that has survived of them, less than five pages of large print, has come down to us indirectly in the form of quotations from authors in possession of complete copies of a work that was probably also destroyed.

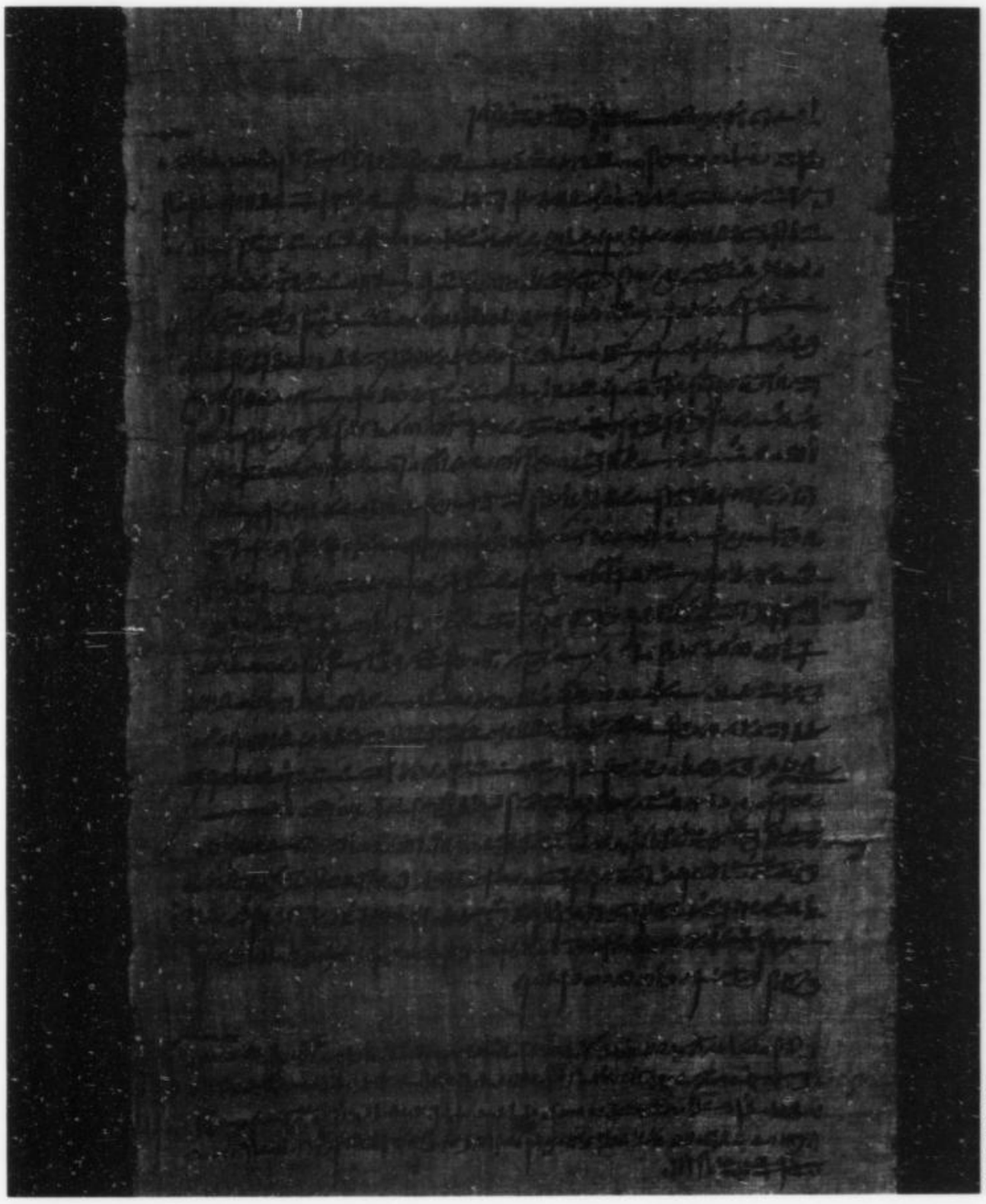
Under the Christian Roman Empire, monks soon became the only people licenced to copy pieces of writing. They took advantage of the situation and, following their superiors' injunctions, obeyed their religious convictions. A monk named Xiphilin wrote, and of course abridged, the only version that has come down to us of Dio Cassius's history of Rome, and Flavius Josephus's *The Antiquities of the Jews* was "reworked" with the interpolation of a passage on Jesus.

The second conclusion is that the more ideas a work contained the smaller the likelihood that it would circulate untouched.

Manipulation, distortion and invention

An additional peril to those of distortion and censorship was that of manipulation by "well intentioned" copyists and the absurd mix-ups due to the authors themselves. In the reports despatched by Megasthenes, the Greek ambassador to the court of Candragupta Maurya in the fourth century B.C., it is impossible to distinguish what is really Hindu from what merely reflects the author's determination to "Hellenize" his observations, as when he purports to identify Dionysus and Hercules among the Hindu gods. ▸

Detail of an Egyptian papyrus manuscript from the reign of Psamtik I (c. 663-609 B.C.).



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Very few authors, even including the greatest writers of Antiquity, escaped the indignity of forgery. In those days people did not know how to distinguish the authentic from the false on the basis of style, writing or the material used. Even today we do not know for sure which texts were authentically and entirely written by Plato, although some such as the *Second Alcibiades*, the *Theages* and the *Axiochos* are unanimously recognized to be fakes. The *First Alcibiades* itself, with the surprising interruption by Zarathustra, is "dubious". It is now accepted that Aristotle never wrote the book on the Wise Men that was long attributed to him.

The Italian historian Arnaldo Momigliano believed that most Greek and Latin texts purporting to be translations of oriental originals dealing with such figures as Zarathustra, Thoth and Ilystaspe are pure fabrications. Despite their immense talents, the Greeks were not gifted linguists. They garbled Persian and made a hash of Hebrew, and all Egyptologists know that the Greek texts purporting to be reproductions of originals of the cult of Isis are embellishments that bear little relationship to the original. Plotinus asked Porphyry to unmask the forger who had produced an *Apocalypse of Zarathustra*, and as early as the third century B.C., clever swindlers tried to sell "Aristotle's real library" to Ptolemy III Euregetes.

It was just as true in the past as it is today that the most far-fetched stories—the ones that appealed to the simple—stood the best chance of survival. Herodotus (circa 480-425 B.C.) was taken in by the confabulations of Aristeas of Proconnesus (circa 550 B.C.) who "described" the griffins, bird-men and giant ants that were to be found in Asia. Giving credence to the writings of the man Cicero had dubbed "the father of history", Alexander the Great believed that the Nile was a tributary of the Indus. Seventeen centuries later Marco Polo gave a description of China in his *Book of Travels* that was invented from start to finish and contained no mention of the existence of paper, tea, the Great Wall, printing, banknotes, ice-cream, none of which were known in the West. Yet this far-fetched account enjoyed a huge success. Of the versions produced at the time 143 have survived, and there must have been hundreds more!

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A doctor examines a urine sample, following precepts laid down by the great Persian physician, alchemist and philosopher Rhazès (9th-10th century). Detail from a French 14th-century manuscript.

The ideas and information that travelled with manuscripts were clearly often at second or even third hand. Accounts of the Far or Middle East that reached the Greeks were often confabulations, and so were many of the manuscripts they wrote about them. More recently, manuscripts about the New World—especially Spanish and Portuguese—were also largely unreliable, and the continent they described was presented to Europeans as a land of fantasy.

The third conclusion to be drawn is that false ideas circulate far more easily than true ones.

Translation, utilization, rediscovery

The Western tradition which holds that "the Arabs" saved the Greek cultural heritage should not be accepted without qualification, true though it is that Arabs translated almost all Aristotle and Plato, and Neo-Platonists like Plotinus, Ptolemy and Euclid. It does mean, however, that manuscripts of these texts already existed. Furthermore, the term "Arab" is very loosely used in this context since the translators concerned included Turks, Persians, Mesopotamians from Baghdad, Jews and converted Christians. Nor do the translations seem always to have been masterpieces of precision; some of the "free" interpretations they contain are bewildering. The ideas they conveyed to readers could often be quite different from those in the original texts.

The greatest paradox is that manuscripts circulated when the Islamic empires were at the height of their power and in a totally different way from that which is generally accepted. It was through Latin and Hebrew translations of Averroës's commentaries on Aristotle that many Western Christian thinkers, including Roger Bacon and Duns Scotus, first came to know about Aristotle's ideas. Averroism nourished Christian philosophy and theology until Thomas Aquinas launched his great diatribe against the Parisian Averroists in 1274.

The great library at Alexandria (Egypt). The most famous library of Antiquity, it may have contained as many as 700,000 volumes. Late 19th-century Hungarian engraving.

© Jean-Loup Charmet, Paris

The most famous manuscripts in the modern world are the Dead Sea Scrolls. One of their special features is that they never reached their destination. Discovered by chance in the twentieth century, some twenty-two centuries after they were written, they raise a question which is seldom mentioned but is nevertheless central to the transmission of ideas via manuscripts: who were they intended for? Were these monks from Qumrân on the shore of the Dead Sea, known as "Essenes", who indefatigably covered parchment rolls with copies (often considerably modified) of whole books of the Old Testament, working for themselves, or were their copies meant for other communities? And if so, which ones? What originals did they use? It is very likely that other manuscripts of the same type are awaiting discovery—like the fragments discovered in 1884 in Jerusalem which were rejected as fakes through the obstinacy of a French palaeographer and now seem to have been lost forever.

Incidentally, one might also wonder what happened to the hand-written scrolls that Buddhist monks carried for centuries along the Silk Route. There were hundreds of these monks, and each one travelled with about fifteen scrolls as his sole luggage. This adds up to a large number of lost scrolls....

A fourth conclusion may be drawn, namely that manuscripts circulated more easily between cultures that were politically close and were preserved with greater security in those circumstances.

The men of letters of the young Islamic empire were interested in the Greek and Latin learning which had fostered the Byzantine empire they were in the process of devouring, and educated Christians were interested in the learning of the Muslims who were threatening them. And if we still have Latin rather than Greek writings about the Celts, we should probably be grateful to imperial administrators who were sufficiently interested in the description of foreign peoples to have their manuscripts copied in large numbers, thereby increasing their chances of survival.

An appendix may be added to the fourth conclusion: manuscripts have a far better chance of surviving if they serve political and ideological ends.

Printing, diffusion and prohibition

Printing seems to have decisively changed the situation for manuscripts. By producing hundreds of copies of a text, the printing press made it more likely that at least a few would survive. In principle this was true except that censorship of manuscripts intensified for an obvious reason, to stop them reaching the printer. Having to destroy all the printed copies and making possession of any surviving copies a crime made the task of the thought police much more complicated.

Burning books. Engraving from Hartmann Schedel's "Universal Chronicle", also known as the Nuremberg Chronicle (1493).

One of the most striking examples of this kind of censorship is to be seen in the tribulations of a manuscript written in the seventeenth century, which was copied by hand and circulated throughout Europe until 1690 before being published anonymously in 1719, probably in Holland. This printed edition was seized and destroyed. Only three copies have survived and are today conserved at the universities of Leyden, Göttingen and Cornell respectively. A replica was published in 1994 in Italy by Einaudi, 275 years later. This work by an unknown author, the *Treatise of the Three Impostors, or the Mind of Mr. Spinoza*, boldly claimed that the three monotheistic religions were of human, not divine, inspiration. Many other manuscripts, old and new, are still sleeping in secret archives and inaccessible libraries.

I will end this article with a fifth conclusion, namely that the most threatened manuscripts are those that are richest in ideas. ■

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Rumour, gossip and seditious songs fed the underground media that flourished in the reign of Louis XV

Best-sellers and gossip-mongers in 18th-century France

BY ROBERT DARNTON

Above, Parisian newshawks at their usual meeting point, a tree in the gardens of the Palais-Royal, around 1750. By gathering news and spreading it orally, they were important links in the information chain of 18th-century France.

It would be a mistake to think that the England of Samuel Johnson, the France of Diderot and the Germany of Goethe formed part of a media-free civilization. Their world buzzed with a communication network every bit as dense as ours. It was merely different—so different that most of its media have been forgotten. Take the case of eighteenth-century Paris. Who today can even recognize the names of the genres and modes of its communication system: *mauvais propos* (saucy gossip), *bruit public* (public rumour), *on-dit* (rumour), *pasquinade* (scurrilous pamphlet), *canard* (tall story), *feuille volante* (scandal sheet), *factum* (squib), *libelle* (lampoon) and *chronique scandaleuse* (muck-raking history)?

There were so many modes of communication, and they intersected and overlapped so intensively, that one can hardly picture their operation. Let me give as an example an anecdote which might be likened to a modern

"news flash". It was incorporated in a best-selling biography of Mme. Du Barry, the mistress of Louis XV:

"There is a report, carefully spread about by some courtiers, which proves that Mme du Barry has not lost any favour or familiarity with the king, as some had suspected. His Majesty likes to brew his own coffee and, by means of this innocent amusement, to get some relief from the heavy burdens of government. A few days ago, the coffee pot began to boil over while His Majesty was distracted by something else. 'Hey, France!' called out the beautiful favourite, 'Look out! Your coffee's going to pot!' We are told that 'France' is the familiar expression utilized by this lady in the intimacy of the *petits appartements*. The details should never circulate outside of them, but they escape, nonetheless, thanks to the malignity of the courtiers."

The anecdote is trivial in itself, but it illustrates the way a news item moved through various media, reaching an ever-wider public. In this case, it went through four phases: it began as a *mauvais propos*, or insider gossip at court. Then it took the form of a *bruit public*, or general rumour, in Paris. Next it was consigned to writing in a manuscript news sheet, or *gazette à la main*. And finally it figured as an episode in a *libelle*, that is, a printed book which belonged to a genre of scandalous and highly illegal political literature.

Forbidden best-sellers

In my own research, I have tried to identify the forbidden books that were most in demand during the twenty years before the French Revolution. By studying orders of booksellers and other sources, I have come up with a retrospective best-seller list, the top fifteen of the 720 works that composed the highly popular corpus of literature which circulated beyond the reach of the censors and the police. The list contains some well-known works by famous writers like Voltaire, the Abbé Raynal and the Baron d'Holbach. But five of the top fifteen best-sellers were *libelles* like *Anecdotes sur Mme la comtesse Du Barry*, quoted above, or *chroniques scandaleuses*, a variety of muckraking contemporary history. Although they reached readers in every corner of the kingdom, all five have been completely forgotten, like their authors, who have disappeared from the history of literature.

How can we assess the impact of these books on public opinion?

Thanks to advances in the new discipline known as the history of the book, we have a pretty good idea of how the printed word became a force in European history; but we know very little about oral modes of communication. They could have been more important than the print media in societies with a high rate of illiteracy, but their effectiveness is difficult to gauge because the spoken word generally vanished into the air.

In the case of eighteenth-century Paris, however, oral communication about public affairs was followed carefully by the police, who posted spies in cafés, taverns, public gardens and all the nerve centres for the spread of information. Spy reports cannot be taken literally, of course, but they reveal a great deal about the general tone and the modes of transmission in oral communication. By way of illustration, I will discuss two modes: gossip and songs.

A hotbed of gossip

Gossip provided the most important source of news for Parisians under the Old Regime, because newspapers did not exist. True, there were many periodicals, and some of them contained articles about court ceremonies and foreign affairs. But papers with news in them, news as we know it—information about power struggles and personalities in the public sphere—did not appear until the press was freed of censorship in 1789.

If you wanted to know what was happening in the corridors of power before 1789, you used your feet and your ears. You went to certain cafés, certain benches in the Luxembourg Gardens, a certain terrace in the Tuileries Gardens or the Tree of Cracow; and you listened to the *nouvellistes de bouche* or newsmongers who gathered at those centres of gossip. The Tree of Cracow was an actual tree in the garden ▸

Exchanging information at the Café de la Régence in Paris, around 1750. Many intellectuals frequented this café on the Place du Palais-Royal. Contemporary drawing by an unknown artist.

© Jean-Loup Charmet, Paris

▸ of the Palais-Royal, which served as a meeting place for those who wanted to know who was winning in the War of the Polish Succession from 1733 to 1735. During the next decades, it became such an important institution that ambassadors sent their servants to pick up news items—or to plant them, for gossip became public opinion and public opinion became a force to be reckoned with under Louis XV.

The regime acknowledged this new form of power by placing spies wherever *bruits publics* (public rumour) or *mauvais propos* (bad talk) were likely to break out. I have found spy reports on conversations in forty cafés around 1730. Some are even written in dialogue:

"At the Café de Foy someone said that the king had taken a mistress, that she was named Gontaut, and that she was a beautiful woman, the niece of the Duc de Noailles and the Comtesse de Toulouse. Others said, 'If so, then there could be some big changes.' And another replied, 'True, a rumour is spreading, but I find it hard to believe, since the Cardinal de Fleury is in charge. I don't think the king has any inclination in that direction, because he has always been kept away from women.' 'Nevertheless,' someone else said, 'it wouldn't be the greatest evil if he had a mistress.' 'Well, *messieurs*,' another added, 'it may not be a passing fancy, and a first love could raise some danger on the sexual side and could cause more harm than good. It would be far more desirable if he liked hunting better than that kind of thing.' "

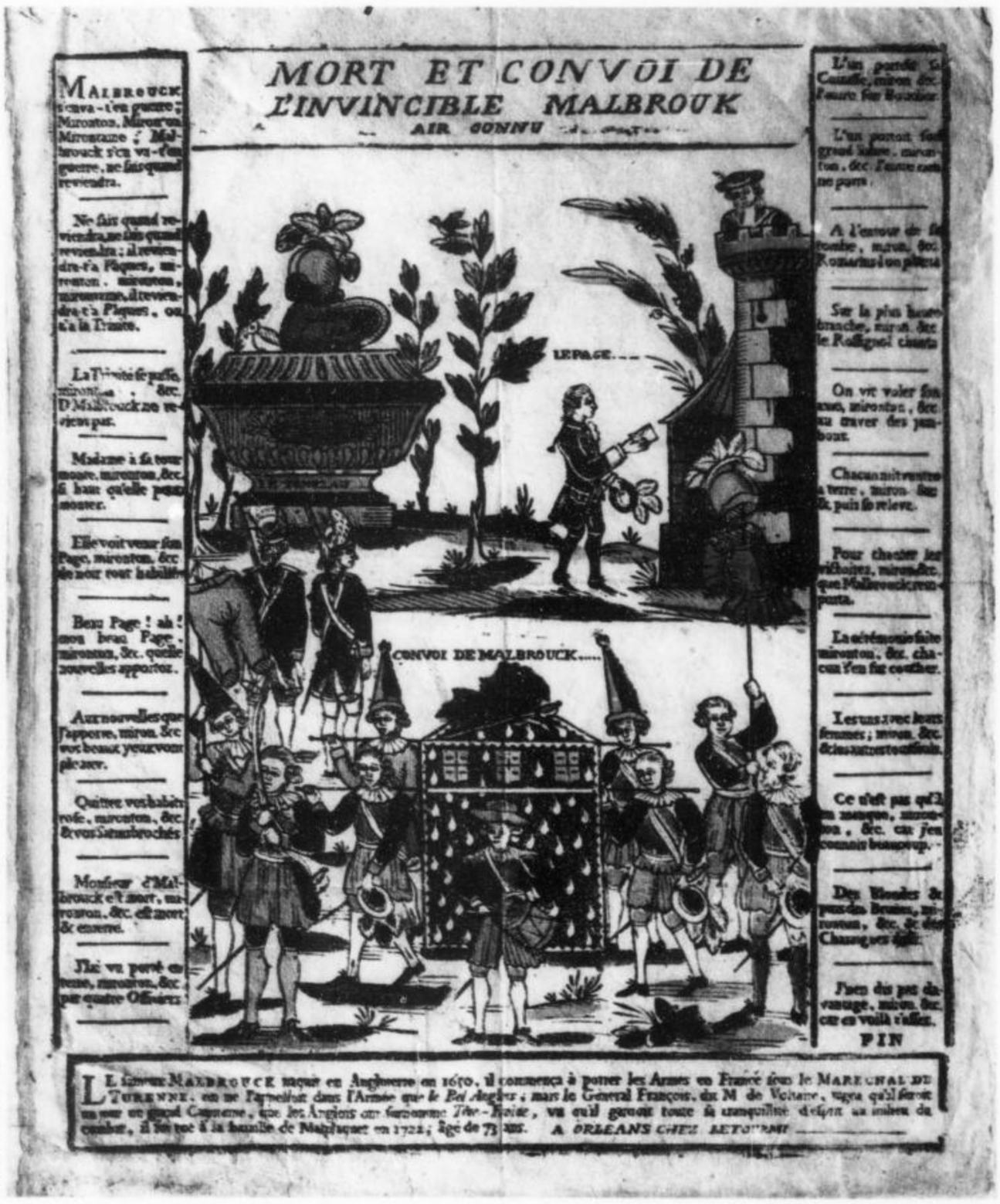
As always, the royal sex life provided plenty of material for gossip, but the reports indicate that the talk tended to be friendly. In 1729, when the queen was about to give birth, the cafés rang with jubilation:

"Truly, everyone is delighted, because they all hope greatly to have a dauphin. . . . One of them said, '*Parbleu, messieurs*, if God graces us with a dauphin, you will see Paris and the whole river aflame [with fireworks in celebration].' Everyone is praying for that."

Twenty years later, the tone had changed completely:

"In the shop of the wigmaker Gaujoux, this individual [Jules Alexis Bernard] read aloud . . . an attack on the king in which it was said that His Majesty let himself be governed by ignorant and incompetent ministers and had made a shameful, dishonourable peace [the Treaty of Aix-la-Chapelle, 1748], which gave up all the fortresses that had been captured . . . ; that the king, by his affair with the three sisters, scandalized his people and would bring down all sorts of misfortune on himself if he did not change his ways; that His Majesty scorned the queen and was an adulterer; that he had not confessed for Easter communion and would bring down the curse of God upon the kingdom and that France would be overwhelmed with disasters. . . . He promised Sieur Duzemard that he would show him the book entitled *The Three Sisters*."

A late-18th-century illustrated edition of *Malbrough s'en va-t-en-guerre*, a French song that was highly popular at that time.



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Seditious songs

During the twenty years that separate those reports, a great deal had happened to damage the Parisians' fondness for their king, and a great deal more would happen between 1750 and 1789. In his manuscript memoirs, the head of the Paris police, Jean-Charles-Pierre Lenoir, wrote that he had to pay the crowd to shout "Vive la reine!" when Marie-Antoinette, Louis XVI's queen, rode through the streets in the 1780s, but his efforts produced "only some scattered applause, which everyone knew to be bought". It seems clear that public opinion had shifted and that the shift had involved an interpenetration of written and oral modes of communication.

Parisians did not merely talk; they also sang. Songs were mnemonic devices and powerful vehicles for spreading messages, like commercial jingles today. People commonly com-

© Selva, Paris

A group of "incredibles" meet in a Paris café. During the early days of the Directory (1795-1799) the incredibles were fashionable young royalists noted for their mannered elegance. Engraving made in 1797.

posed verse about current events and set it to popular tunes, such as "The Bear Went Over the Mountain" ("*Malbrough s'en va-t-en guerre*" in French). The greatest songster of the century, Charles Simon Favart, learned to put words to tunes while rhythmically kneading dough in his father's bakery. Many others—Collé, Gallet, Panard, Vadé, Taconnet, Fromaget, Fagan—also came from the artisan classes. Their songs penetrated workshops and taverns throughout the city, and street singers accompanied by hurdy-gurdies relayed them from corner to corner. Paris was suffused with songs, many of them political. As the saying went, government in France was "an absolute monarchy tempered by songs".

When a hit song attacked the king and his ministers, it was a serious affair. In 1749 the police received an order to capture the author of a song about the fall of the first Maurepas ministry. They had only one clue: it began with the words, "People once so proud, now so servile. . . ." But that was enough for them to set their spies to work in taverns and cafés; and before long one of their agents heard the verse declaimed by a medical student named François Bonis.

He was hustled off to the Bastille and asked where he had got the verse. He had copied it, he said, from a sheet of paper that was passed to him by a priest in the hospital. The priest was arrested and said he had got it from another priest, who in turn was arrested and attributed it to a law student, who said it was dictated to him in class by a professor, who claimed he had heard it from a wit in a café . . . and so on, until the police had filled the Bastille with fourteen suspects.

They never found the original author. In fact there may have been no distinct author at all, because it was a case of collective creativity: people changed phrases and added verses as songs made the rounds. And while the police tried to follow the song to its origin, they discovered that its path crossed those of six other songs, each more seditious than the last and each with its own chain of transmission. Their words were memorized, declaimed, read and sung. They circulated on scraps of paper hidden in pockets and sleeves, and they were printed in several *chroniques scandaleuses*, which spread them to the farthest corners of the kingdom.

Two lessons stand out from the cases I have mentioned.

First, it makes no sense to separate elite "print culture" from oral "popular culture", because messages spread through different modes of communication, which intersected and overlapped among all segments of the population. The media were mixed; they reached a mixed audience, and so the history of books should be studied as one ingredient in the general history of communication.

Second, best-sellers, gossip and songs may not provide an accurate version of events, but they show how events appeared in the dominant media of the time. In the case of eighteenth-century France, I would go so far as to claim they constituted a coherent account of contemporary history, the only one, in fact, that was available to eighteenth-century Frenchmen, because publications about the recent past and current events were not allowed to circulate in the legal book trade. Illegally circulated publications, in the form of *libelles* and *chroniques scandaleuses*, reduced the story of public affairs during the reign of Louis XV to a kind of folklore organized around two master themes: despotism and decadence.

We know now that the folklore version of the Old Regime was wrong. Mme Du Barry had indeed spent some time as a prostitute before her promotion to the royal bed, as the *libelles* claimed, but Louis XV was no despot. And when the Bastille was stormed on 14 July 1789, it contained only seven prisoners, most of them incarcerated for immoral behaviour at the request of their families. But the French saw the Bastille as the embodiment of despotism. They experienced the events of the 1780s as variations on the themes that permeated their gossip, songs and books. They perceived the collapse of the Old Regime from the perspective of a political folklore that had been spread far and wide by the dominant media of their time. ■

'Words have no legs, yet they walk'

YOUSSOUF TATA CISSÉ
talks to Jasmina Šopova

Africa's continent-wide lines of communication based on respect for the spoken word

■ **In traditional African societies knowledge was transmitted orally. Did this restrict the spread of ideas?**

Youssouf Tata Cissé: Not at all. In Africa ideas travelled with people. Human migrations, initiatory journeys, conquests and trade routes made pathways along which ideas criss-crossed the continent.

Since ancient times Africans have moved about and carried with them knowledge, technology, beliefs, traditions and languages. What other explanation can there be for the fact that one finds the same ideograms tattood on the bodies of Moroccan women and depicted in the statuary of the Bambara and Malinke peoples of west Africa? How can you explain the existence of the same place names, the same divinities, the same rites and the same musical instruments in the Nile Valley and in west Africa? Comparative studies on the affinities between pharaonic Egyptian and certain African languages by the noted Senegalese writer and Egyptologist Cheikh Anta Diop, and his research on the migrations of peoples, based on purely linguistic data, say a lot about this flow of ideas in Africa.

The Nile Valley is often mentioned in the oral traditions of the Soninke and Malinke, who regard it as the original homeland of their ancestors. Intrigued by this, I carried out research into place names and ethnic names and found nearly 400 names in Egypt, Sudan and Ethiopia that also existed in west Africa. Here are a few examples: El Kantara in Egypt, and Kantara, a Soninke clan name and forename; Segala, the name of an island in the Red Sea and of several villages in Mali and Côte d'Ivoire; Dakar in Ethiopia and Dakar, the capital of Senegal. Moreover the oldest divinities of Pharaonic Egypt—Bes, the oryx, the vulture, the ibis, the falcon and the sphinx—are still celebrated in Mali where they have their masks and statuettes.

The absence of writing was no obstacle to the spread of knowledge. The cult of the spoken word in Africa meant that speech was an important channel for the communication of knowledge and ideas. That is why Mali's Bambara people say, "words have no legs, yet they walk." Nothing can stop them.

P. Cassard © Hoa Qui, Paris

A griot in Casamance (Senegal).

■ What role have initiatory journeys played in the spread of ideas?

Y. T. C.: Initiation is much more than a handful of "exotic" rites. It is a general education that begins at six years of age and ends at around thirty-three. Traditionally, it was carried out by six societies to which initiates belonged one after the other, depending on their age and the knowledge they had acquired. They learned everything: history, the origins of peoples, languages, mathematics, technology, morality and the secrets of nature and the universe. During this process of learning about life, young initiates were supposed to travel, and they went to foreign lands with their teachers, musicians, dancers and craftsmen. They lodged with local people and discovered new ways of life, new crafts and new languages. In turn, they put on shows in which they demonstrated their own knowledge. Enrichment was mutual. Only when they had learned three languages did they return home. This indicates the importance attached to knowledge and respect for others. Nowadays these initiatory journeys occur during the dry season, but in the past they lasted seven years.

■ What influence was exercised by the griots (story-tellers and masters of ceremonies) and the *donikeba* (teachers)?

Y. T. C.: *Doni* in Bambara means "knowledge", and the *donikeba* are "makers of knowledge". We also have *doma*, or "knowers", and *soma*, or "priests". These masters have an extraordinary memory, and are the guardians and propagators of tradition. In the past their social status was so high that they enjoyed diplomatic immunity in wartime.

Masters of the spoken word that they were, griots acted as negotiators and ambassadors in times of conflict, as did smiths, wood-cutters and hunters, who were reputed for their manual dexterity and their knowledge. As musicians, poets, genealogists and historians, they also played a considerable role in the spread of ideas. Through a visualization technique enabling them to put a face to every name, these "troubadours" knew by heart the complete genealogy of the family to which they were attached, as well as the great deeds performed by its ancestors. Some knew, and still know, the history of a whole ethnic group or of an entire kingdom. The history of Mali has been recorded in verse and set to music. For a month every year the griots of Kela, for example, recite it all through the nights of Thursday to Friday, Saturday to Sunday and Sunday to Monday, 100 hours in all.

Griots are also great travellers. They have to visit various masters for periods of training during which they increase their knowledge while also spreading it.

To give you some idea of the distances they can cover, let me cite a relatively recent example. In 1946, at the end of the Second World War, griots left Bamako and went on foot via Niamey to Agadez in Niger—in other words a distance of 4,000 kilometres—to sing the praises of the RDA (the *Rassemblement Démocratique Africain*, a west African political movement), the triumph of General de Gaulle, the abolition of forced labour, and the forty-four-hour working week. . . . In this ▸

© Charles Lénars, Paris

During a ceremony in the forest near Abidjan (Côte d'Ivoire) a message is sent by drum to announce the arrival of masked dancers.

way political ideas spread through songs sung by illiterate griots.

■ You also mentioned that ideas spread as a result of conquest.

Y. T. C.: Yes, because when warriors set out to conquer new territory, they were accompanied by religious leaders, masters of initiation, griots and smiths. All the corporations of craftsmen—the main repositories of tradition—were among their retinue. They took with them their raiment, ornaments and jewelry. They exchanged their knowledge with that of the peoples whose land they occupied. New civilizations were born as the result of these encounters.

In peacetime ideas circulated as a result of the formal relations between different cultural and religious communities. Take the case of Mansa Musa I, who ruled the Mali empire between 1307 and 1337. It is said that when he made the pilgrimage to Mecca his escort consisted of 60,000 porters, 10,000 subjects and 500 servants. His wealth and generosity during his stay in Cairo were noted not only by the Egyptians but also by Italians, Portuguese and North Africans. In this way new doors were opened for trade and cultural exchanges.

■ How did Islam reach Mali and what contribution has it made?

Y. T. C.: Mali is among the foremost Islamic countries of west Africa. According to Soninke oral tradition Islam was introduced around 666 by the envoys of Ocba Ben Nafi, a leading figure in the expansion of Islam in Egypt and North Africa. After laying the foundations of the al-Qayrawan mosque in Tunisia, he is said to have sent a delegation to the capital of Wagadu (present-day Ghana) to ask Kaya Maghan, the emperor, to convert to Islam. The emperor rejected the proposal, but allowed his subjects, especially those doing business with Turkey (trade in diamonds, eunuchs and slaves) to embrace the new religion. The first converts were the Soninke.

The Qur'an was immediately translated, with a commentary, first into Soninke then into the country's other languages, so that people could learn to recite the Qur'an by heart and absorb Islamic dogma without knowing Arabic. This is still done today. In

other words, Islam has been integrated into traditional societies without destroying traditional cultures and languages.

Traditional art was also incorporated into embryonic Islamic architecture. Architects adapted old patterns of worship to the new religion and built mosques in a unique style known as "Sudanese", using *banco*—compacted earth reinforced with an exposed timber framework. One of the oldest mosques is in Tombouctou. It was designed by an architect named Ishaq el-Tuwedjin, whom Mansa Musa had met in Cairo during his pilgrimage to Mecca. The mosque at Djenné is by far the most beautiful. Built in 1907 and patterned on the early religious buildings of the Ghana empire, it too is typical of the Sudanese style widespread in eastern Senegal, Ghana and Nigeria—all the countries visited by the Sudanese builders.

The egg-shaped dome added to the top of minarets is another example of Sudanese syncretism. Bambara cosmogony holds that the first thing the Supreme Being created was a wondrous egg, *Fan*, consisting of nine compartments into which He inserted the nine basic states of existence. And so the egg-shaped dome is a symbol of the traditional religion grafted onto a Muslim place of worship.

The pattern marked on the ground in hopscotch, a game played by children the world over, is also divided into nine sections. I think that the role of games in the transfer of ideas should not be neglected, not only in Africa but worldwide. And games mean music and song.

To get back to architecture, I would add that during the colonial period a fusion took place between the traditional style and the European style, leading to what has been called "colonial architecture". It is mainly found in administrative buildings, markets and post offices in Mali, Mauritania, Burkina Faso and Niger.

■ **Did colonization open new routes for the movement of ideas in Africa?**

Y. T. C.: Colonization brought a break in continuity. All aspects of traditional society were disrupted. The setting up of French schools and the use of French as the official language disturbed the system of traditional teaching. Only the Qur'anic schools continued to function. All the traditional structures were shattered. Religious leaders became suspect. Religious rites and objects were labelled as satanic. The established channels for transmitting knowledge and ideas were blocked. The use of so-called "talking" or "messenger" drums was strictly forbidden.

■ **Why?**

Y. T. C.: Because the colonizers realized that the beating of drums signalled that an uprising was afoot. The language of the drums announced the arrival of the colonial army. A message could travel 500 kilometres in a single night. In 1916, for example, during the Bobo uprising in Mali, the drums carried the message as far as Burkina. They said, "Warrior, take up your quiver, don't forget your bow; even struck down by the enemy, we must fight."

■ **Who could understand these messages?**

Y. T. C.: Everyone. All initiates understand the language of the drums. Youth societies, initiatory societies, the griots—they all have their drums and other musical instruments. Obviously there are secret codes that only the initiates know. They are the equivalent of military secrets in modern societies.

In 1965, when I arrived in a Senufo village in Mali, a rapid musical portrait was made of me, so that the drums and balafons could announce my arrival. Apparently they described my physical and moral character. It was an impressive performance. ■

Young Senufo adults return to their village after their initiation into the rules of life in society (Côte d'Ivoire). Their outfit is a sign of their new status.

Michel Huet © Hoa Qui, Paris

Bruno Barbey © Magnum, Paris

The mixed signals of globalization

BY SALAH GUEMRICHE

A hard look at the impact of satellite communication on the South

Above, spreading the news in the traditional way (Fez, Mcrocco).

Once upon a time ideas circulated on foot, as part of people's baggage. Later, the invention of writing and the spread of literacy transformed the very nature of human relationships, perceptions and knowledge of the world. Today ideas spread largely via radio and television. The increase in the number of data banks and the global reach of the Internet are bound to multiply and diversify modes of access to information.

The abolition of frontiers and the advent of the "global village" through the spread of audiovisual communication, which was no more than a utopian dream in the 1960s, is now on the way to becoming a reality. But is not this vision, which underlay the theories of the Canadian sociologist Marshall McLuhan, the same as that which today provides the ideological basis of "globalization"?

In the 1980s a broad consensus crystallized around the bold ideas advanced in France by Jean-Jacques Servan-Schreiber, who was convinced that technology was going to "take us from the neolithic age to the post-industrial age". In the post-independence ferment the developing countries systematically opted for massive technological investment in institutional communications, and decision-makers in the West believed that the "working masses" could be made technology-minded by decree, like people treated in a vaccination campaign.

After having to compete with the wireless and the transistor, then being sidelined by

television, traditional communication by word of mouth was pilloried as a symptom of underdevelopment and scornfully treated by the written press. The fact is that this versatile, time-honoured way of spreading information spells danger to any established order. Immune to the cold rationalism of media systems, the spoken word is a versatile and uncheckable way of transmitting subversive ideas. It is also a means whereby society can restructure itself.

In societies with an oral tradition, communication based on the primacy of words over all other forms of representation is one of the basic ingredients of popular culture. Radio benefitted from this status and gradually became accepted because the spoken word broadcast by radio nurtures the oral tradition—when it does not compete with it—rather than denying or trivializing it. But the basic effect of television is to trivialize. This inclines us to believe that, unlike the television viewers of the industrialized societies studied by McLuhan, viewers who are heirs to an oral tradition will be unsatisfied rather than fascinated by the TV image. They will miss the way in which the spoken word alone was once used to conjure up form, image and colour. The televised image dispossesses the spoken word of its descriptive powers.

Today every household in the world is within reach of a satellite. Some developing countries even have their own satellites, not as instruments of emancipation but as adjuncts of sovereignty, a means of monitoring ideas that come from elsewhere.

A carpet designer in Turkmenistan works on a computerized pattern.

Richard Mannin © Hoa Qui, Paris

Interference or competition?

The development of media networks, the purchase of parabolic dishes and the lure of escapism combine to entice people who are tired of unimaginative programmes produced in their own countries to tune in to more sensational programmes beamed from elsewhere.

Images created in the North often represent values contrary to those of the people in the South, and present characters, situations and living conditions that are light years away from their experience. Nonetheless a wide range of audiences all over the world are swayed by the adventures of the same heroes of the same television series. The only possible explanation for this is the fact that these shows are considered as consumer goods and awaited and received as such.

It is sometimes said that young people in developing countries have more in common with their Western counterparts than they do with their own parents. Should we deduce from this that we are heading towards a community of references and ideas that transcend frontiers? To do so would be to forget the perverse effects that are already beginning to appear. Is it not more likely that the discrepancy between these two modes of representation will sow disharmony and, eventually, schizophrenia and other forms of mental conflict?

It would nonetheless be too simplistic to see this phenomenon as the only expression of the North's hold on the South. In the 1980s Third World experts urged developing countries to co-operate among themselves, convinced that this would provide "the miraculous solution that would put an end to unequal exchanges and enshrine the advent of truly democratic international relations."[1] A survey we carried out in 1984 on the Afro-Arab programme for audiovisual co-operation revealed a tendency among certain partners—under the guise of fine-sounding principles of solidarity—to continue the former relationship of domination for which the former colonial power was criticized. ▶

A cybercafé in Cape Town (South Africa).

A. Lorgnier © Visa, Paris

But there is a big danger that the eternal reflex that leads some to denounce interference by others in their internal affairs may soon lose its familiar landmarks. As the Southern countries themselves become producers of communication technologies, the expansionism they complained of for so long will gradually become interpenetration.

The drums of cyberspace

The issues raised by the traditional media focused on the abolition of political frontiers in the interests of further "integration". The issues raised by Internet involve the abolition of ideological frontiers and the standardization of behaviour and ideas. Nelson Thall, a disciple of Marshall McLuhan, believes that the Internet's unavowed design is to get "the whole world to think and write like North Americans".

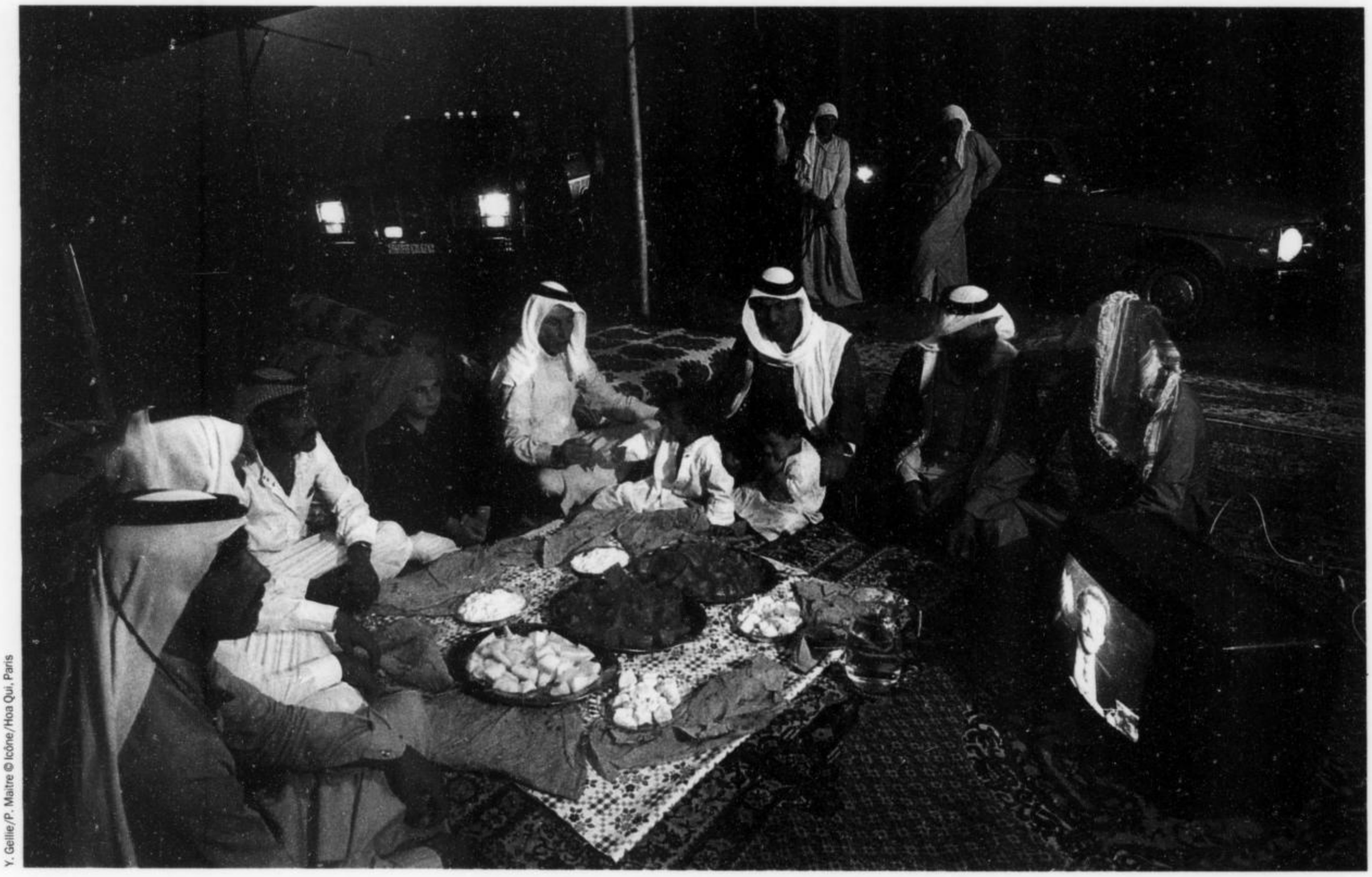
This is not integration but assimilation. It is certainly not what most users expect. For them the Internet is rather a means of "improving the dialogue between countries and between individuals spread around the globe".[2] They are not looking to the Net to escape reality but for a reality that is likely to improve their quality of life at work and play.

As we said above, ideas once travelled in people's baggage. Today they travel predominantly via the airwaves and new communication technologies. What is carried by the airwaves, of course, are the values of the society that produces them. Democracy is one of those values. The noble paradox inherent in transnational flows that are hegemonistic by nature is that they subliminally transmit, albeit through an ideological filter, the message of freedom and human rights. And people can feel that they are citizens of the world when they know—often in "real time"—what is happening on the other side of the globe.

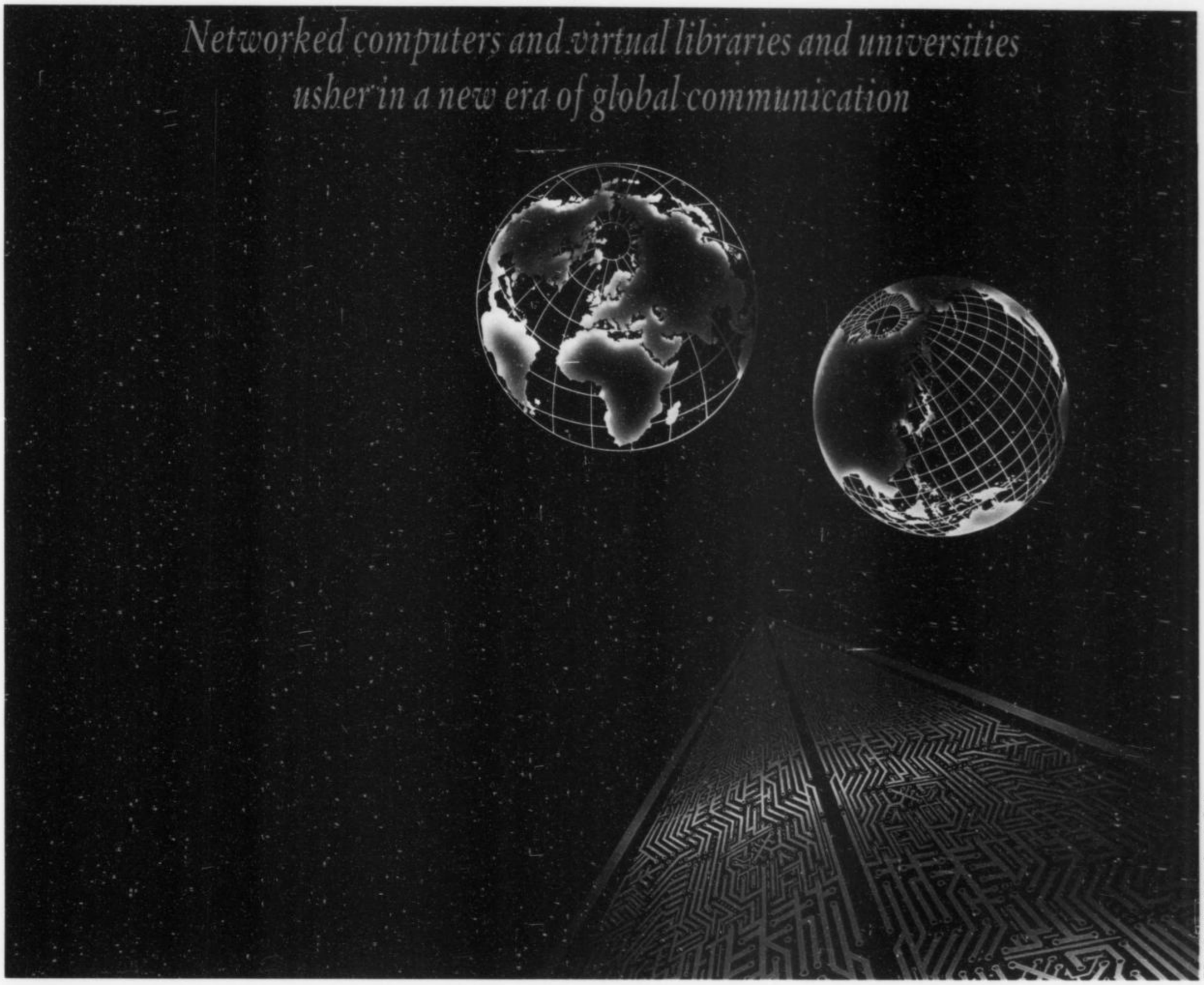
Since its massive penetration of the remotest regions, television has gradually opened people's eyes to their own living conditions by showing them those of other peoples around the world. This awareness always disturbs governments. Much criticism can be levelled at these airwaves beamed from elsewhere, but at least they have helped to sow the seeds of democratic aspirations that cannot be stifled. It remains to be seen what deposits they will leave in the collective memory of tomorrow. ■

1 In A. and M. Mattelart, X. Delcourt, *La culture contre la démocratie? L'audiovisuel à l'heure transnationale.* La Découverte publishers, Paris, 1983. See our contribution to this work, pp. 96, 104.
2 In *Etats de la Francophonie dans le monde 1995/1996*, Paris, Documentation française, 1997.

Word and image.
Bedouin in the desert (Syria).



Y. Geillie/P. Maitre © Icône/Hoa Qui, Paris



Cyberspace: a planetary network of people and ideas

BY J. C. NYÍRI

Above, a computer-generated image illustrating the information superhighway, the communication network capable of channelling an ultra high-speed global flow of text, sounds and images.

Ideas travelled in the same way, and with the same speed, as people until the 1840s, when magnetic telegraphy was introduced. By 1860 there were 51,500 km of telegraph lines in the United States alone. A permanent transatlantic telegraph line was installed in 1866, and by 1872 most of the major cities of the globe were linked.

With the advent of telegraphy, the transmission of information became practically instantaneous, but it also acquired a peculiarly fragmented character. If information is to count as knowledge, it has to relate to a context. For face-to-face communication such a context is provided by the situation in which it is embedded. With a written text, especially with a printed book, the context for each particular passage is given by the wider textual environment, indeed by the entire book, or often even by the library in which the book is found. The mere physical characteristics of a book, and of stacks of books in a library, create a context of temporality—convey a sense of the past. Modern historical consciousness emerged from the printed text.

Lacking a wider written context, and ▸

▸ employing characteristically short sentences, telegraphic style comes close to the style of spoken language. However, telegraphic messages are not embedded in concrete speech situations. With the telephone, the experience of a living conversation is partly restored. Facial expressions, gestures and the impressions of physical surroundings are not transmitted; but tone, mood and pace certainly are. Questions can be asked, a dialogue maintained. Knowledge gained from a telephone conversation might be about events far away, yet it is up to date, and can be rather complete; but of course it lacks the logical coherence of written communication.

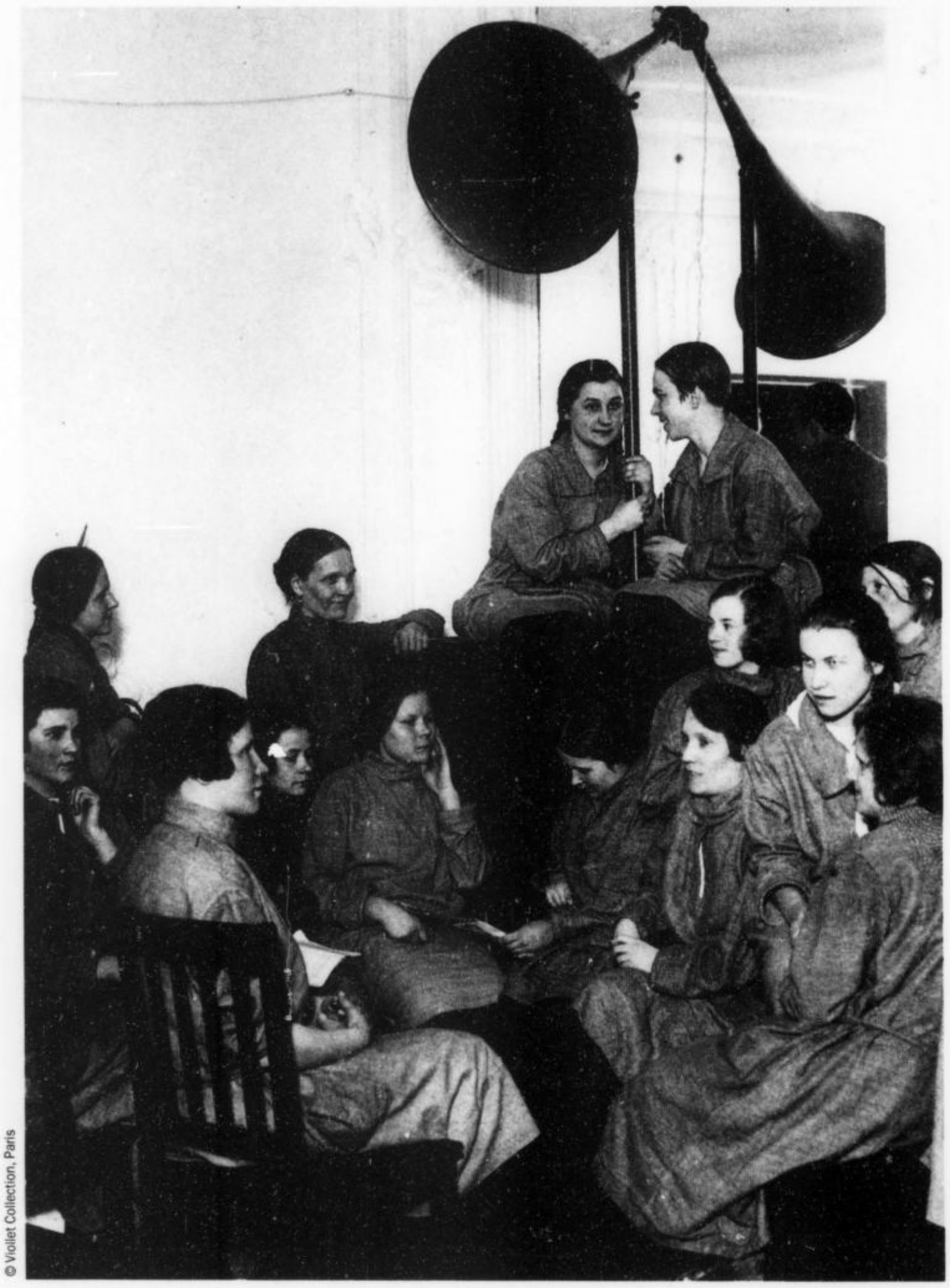
Electronic broadcasting

In the 1920s radio broadcasting rapidly became the dominant mode of news dissemination and propaganda. This was a decisive transition towards a new era of non-written communication, a transition not without effect upon twentieth-century philosophy, in particular upon Heidegger's and Wittgenstein's views on the nature of linguistic meaning and the cognitive role of the community.

Radio broadcasting might enhance a sense of global connectedness; but it also fosters randomness and evanescence, lessening the listeners' ability to form an ordered picture from out of what they have heard. Similarly with television, where even the apparently all-encompassing diversity of information provided by satellite broadcasting, information both verbal *and* visual, from local gossip to international news, results in a motley of views and messages entirely disconnected.

Television, of course, relies fundamentally on images. Now it is possible to conceive of a logic of images as complementing verbal logic, and indeed it is to be expected that the former is going to play an increasingly important role in interactive multimedia communication, the great promise of computer networking. However, it is fair to say that in television broadcasting, as we know it today, the employment of images often subverts rather than amplifies rational thinking.

Young women listen to the radio in a sanatorium near Moscow, around 1930.



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The networked computer

Just a few years ago it would have still been possible to make an analysis of the cognitive and social effects of the spread of the personal computer without specifically referring to the role of computer networking. Today such an analysis would seem unnatural. Computers are, characteristically, enmeshed in networks. As such they are not just number-crunchers and word processors, but also, perhaps even primarily, nodes of communication. The networked computer is a tremendously powerful instrument for bringing together scattered information—data, texts, images, increasingly also sound—from all over the world, and indeed for building up out of that information new edifices of knowledge. The computer enables one to study reference material in a breadth hitherto inconceivable, and in a depth not practicable in the conventional printed medium.

However, both the isolated computer and the networked one possess features which appear to amplify, rather than alleviate, the difficulties of finding one's way around labyrinths of information. The knowledge stored in computers is physically never present, except for the tiny segments momentarily on the screen. When reading or browsing through a book, when walking along the shelves of a library, or even when flipping catalogue cards, one gains a sense of orientation the electronic medium does not provide. For your knowledge to be coherent, you somehow have to know what you know, have a survey, an overview, a memorized

© Selva, Musée Postal, Paris

A period engraving showing a telegraph room in Paris in 1889.

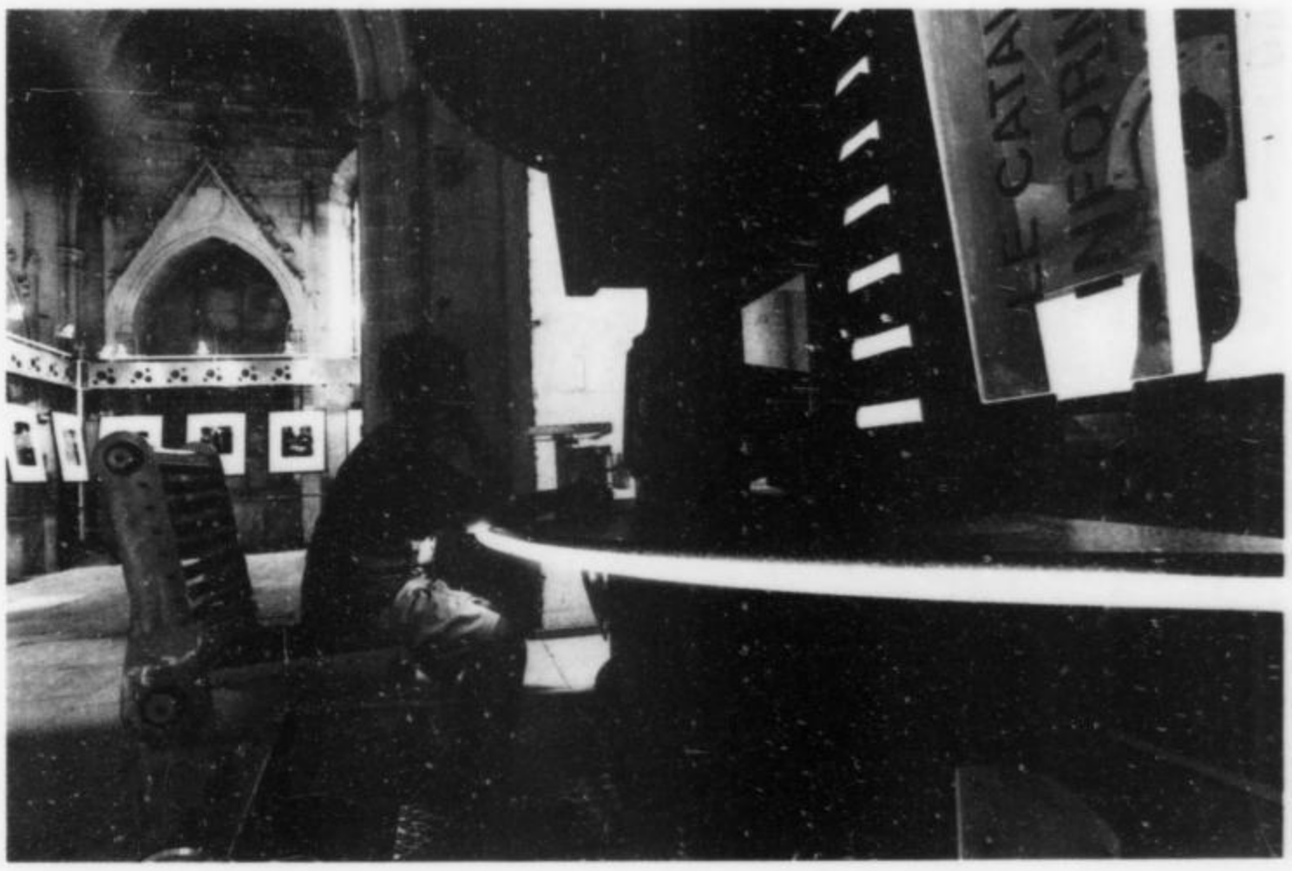
pattern of your knowledge. We have memory images of certain important passages, recall the pattern of text on a printed page, or the location of a volume in a library. When texts are read or scanned on the screen, such an overview will hardly emerge.

From e-mail to WWW

The basic form of networking is e-mail—the exchange of written messages via telephone lines (and/or broad-width cables) and powerful intermediate computers (called servers), between any two individual computer areas. Travelling through a net of interconnected networks, e-mail messages normally take just a few seconds to reach their destinations, and within minutes a reply might arrive. As a consequence e-mail messages are frequently quite similar to exchanges in spoken languages: rich in emotions, poor in grammar and typically without the logical discipline of reflective writing. E-mail messages might be sent to more than one person, even to lists containing hundreds or thousands of addresses. In any case they are easily forwarded to third parties.

E-mail messages are regularly seen by eyes they were not intended for. They are, so to speak, *overheard*, just as written messages often were in the age of reading aloud, the kind of reading characteristic of manuscript cultures. Another feature of manuscript cultures brought back by e-mail—and by all forms of working with electronic documents—is intertextuality: the free re-use and mixing of passages, taken from any text, in the process of producing a new one. ▶

"A Journey through Digital Space", an exhibition held at the abbey of Montmajour, near Arles (France).



© Christian Lionel-Dupont, Vallauris (France)

E-mail gives rise to innumerable discussion lists, news groups and computer bulletin boards, which have been described as the contemporary equivalent of the ancient forum. And while the overwhelming part of communication in the electronic market-place is entirely fleeting and uninformed, the concerted actions discussion groups frequently initiate *do* have an immense democratic potential, and the exchanges they pursue can indeed provide information of high quality.

Such quality is of course more or less maintained in the networked exchanges of the scientific community. There is today a growing number of electronic scholarly journals; indeed in some fields traditional periodicals have already become obsolete. Even more significant are, as Stevan Harnad pointed out in *Psychological Science* in 1990, the changes pertaining to the so-called pre-publication phase—the phase of scientific inquiry "in which ideas and findings are discussed informally with colleagues, presented more formally in seminars, conferences and symposia, and distributed still more widely in the form of pre-prints. It has now become possible", Harnad emphasized, "to do all this in a remarkable new way that is not only incomparably more thorough and systematic in its distribution, potentially global in scale and almost instantaneous in speed, but . . . unprecedentedly interactive." *Scholarly skywriting* is the telling name Harnad gives to interactive scientific inquiry in the medium of e-mail.

The World Wide Web

The world of e-mail documents is unstable and chaotic, difficult to navigate and impossible to survey. By contrast, the World Wide Web (WWW), today's ultimate computer network achievement, is relatively stable and transparent. The emergence of the Web amounts to a revolution in its own right. So-called *Web pages* are self-published multimedia documents, each having an address, and each connected through so-called *hypertext links*—specifically conspicuous words or symbols—to a number of other Web pages. Web pages form a more or less fixed constellation of documents easy to scan and study. We *may* know our way around in the World Wide Web.

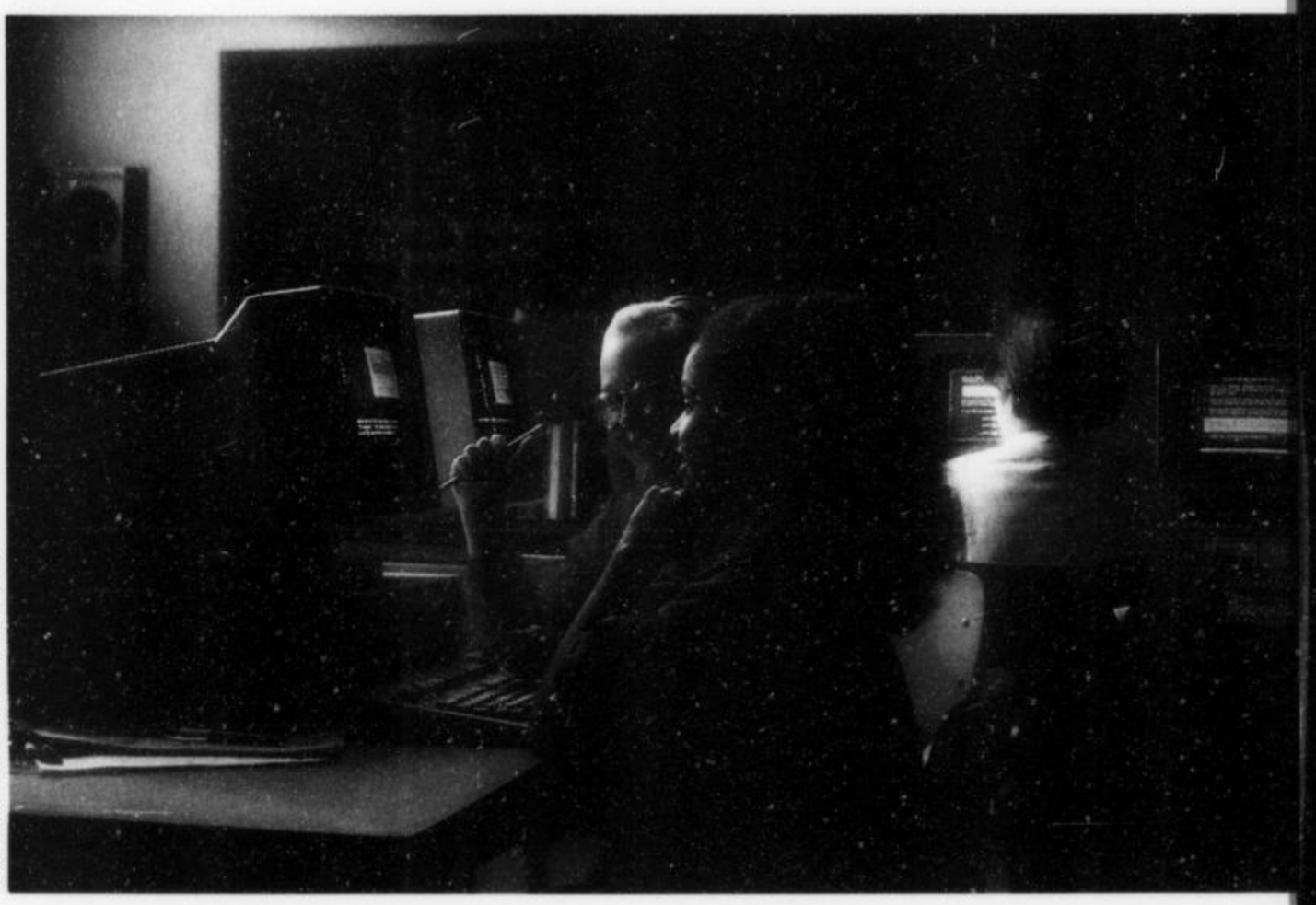
Multimedia documents may also convey knowledge that mere texts cannot. The logic of images, as noted above, might come to fruitfully complement the logic of texts. In the age of manual copying, and even in the age of the printing press, illustrations could only play a subordinate role; and pictures as vehicles of thinking played almost no role at all. This is now changing with the possibility of manipulating images on the screen. Let us add that knowledge is not just a matter of thinking; it is also a matter of practices and skills. And illustrations can show how things are done. It might be very difficult to give a verbal description of, say, how a particular instrument is handled, whereas a picture or a set of illustrations will easily explain it. Knowledge accessible on the Web is not just global; it also tends to be truly operational.

The virtual library

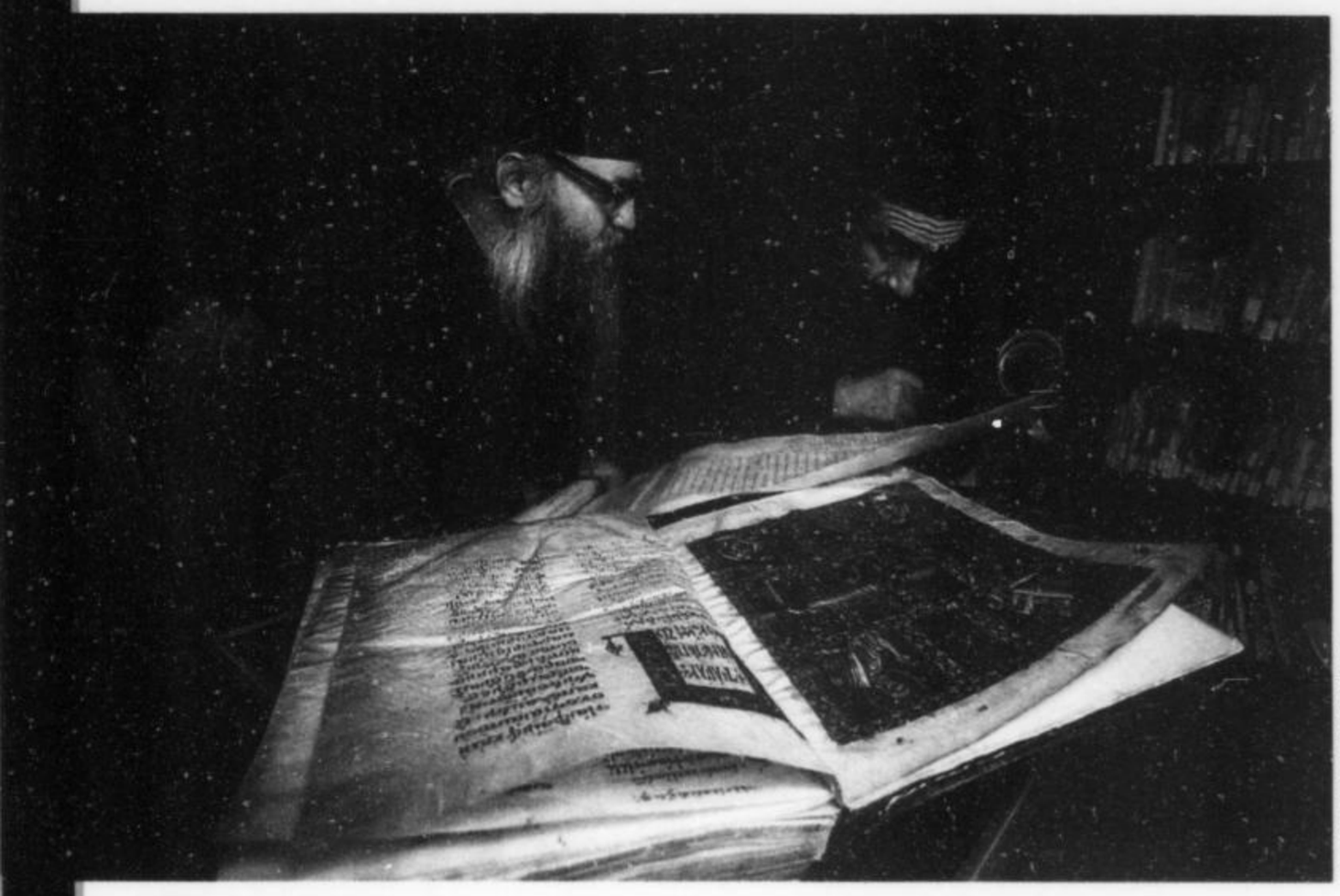
Quite a few of the great public and research libraries of the world plan, or have already begun, to digitize their materials—first the catalogues, and subsequently the holdings themselves. Once digitized, these materials (assuming that copyright problems and other related issues have been solved) will be (and many of them already are) accessible on the net, thereby forming the joint stock of a huge library that has no physical existence—a virtual library. This stock is, of course, continuously enriched by scientific publications now issued as electronic documents.

The advantages of the virtual library are obvious. Users of the net, whether living in poor or rich regions of the world, may in principle have unlimited access to any library item. Once they reach the documents they seek, they can copy them electronically or make printouts; and they can work with them in many subtle ways, such as electronically searching through them, and constructing concordances and indexes. At the same time the original hard copy items can be safely stored in buildings that will gradually become book museums rather than remain traditional libraries.

Children in a computer class (U.S.A.).



Hunter Freeman © Liaison Int./Hoa Qui, Paris



Manaud © Icône/Hoa Qui, Paris

The library of St. Catherine's monastery, built in the 6th century at the foot of Mt. Sinai (Egypt), houses some 3,500 manuscripts, the world's second largest collection after that in the Vatican Library.

However, there are disadvantages too. Even if multimedia technologies are fully employed, bringing about a stronger illusion of physical presence (e.g., pages of old books appearing not just as a uniform text, but, if required, as facsimile) electronic documents are poor at creating a sense of place and time. That the tensions between the virtual and the physical are not, in principle, impossible to resolve, is shown by the programme of the new Bibliothèque Nationale de France. The BNF, which is to be fully operational by 1998, is meant to be both a giant physical library *and* a digital on-line library. It is meant, as two of its spiritual architects put it, to "consummate the marriage of the universe of Gutenberg with that of McLuhan. . . . It will be open, democratic, innovative, but all of those things within a perspective ensuring the greatest respect for the past." The BNF will no doubt be a lighthouse in the torrents of the coming global virtual library.

Virtual universities

In an environment increasingly dominated by multimedia computer networks, conventional secondary and tertiary education is becoming obsolete. Young people growing up with computers, introduced to the marvels of the net at an early age, will experience traditional school settings as simply unnatural. They become used to finding their information not by asking their elders or by going to a library, but by surfing the Web.

On the tertiary level, lifelong learning is expected, in the form of broad interdisciplinary education in the first place, and periods of specialized training in new directions ever after—while being employed, or between jobs.

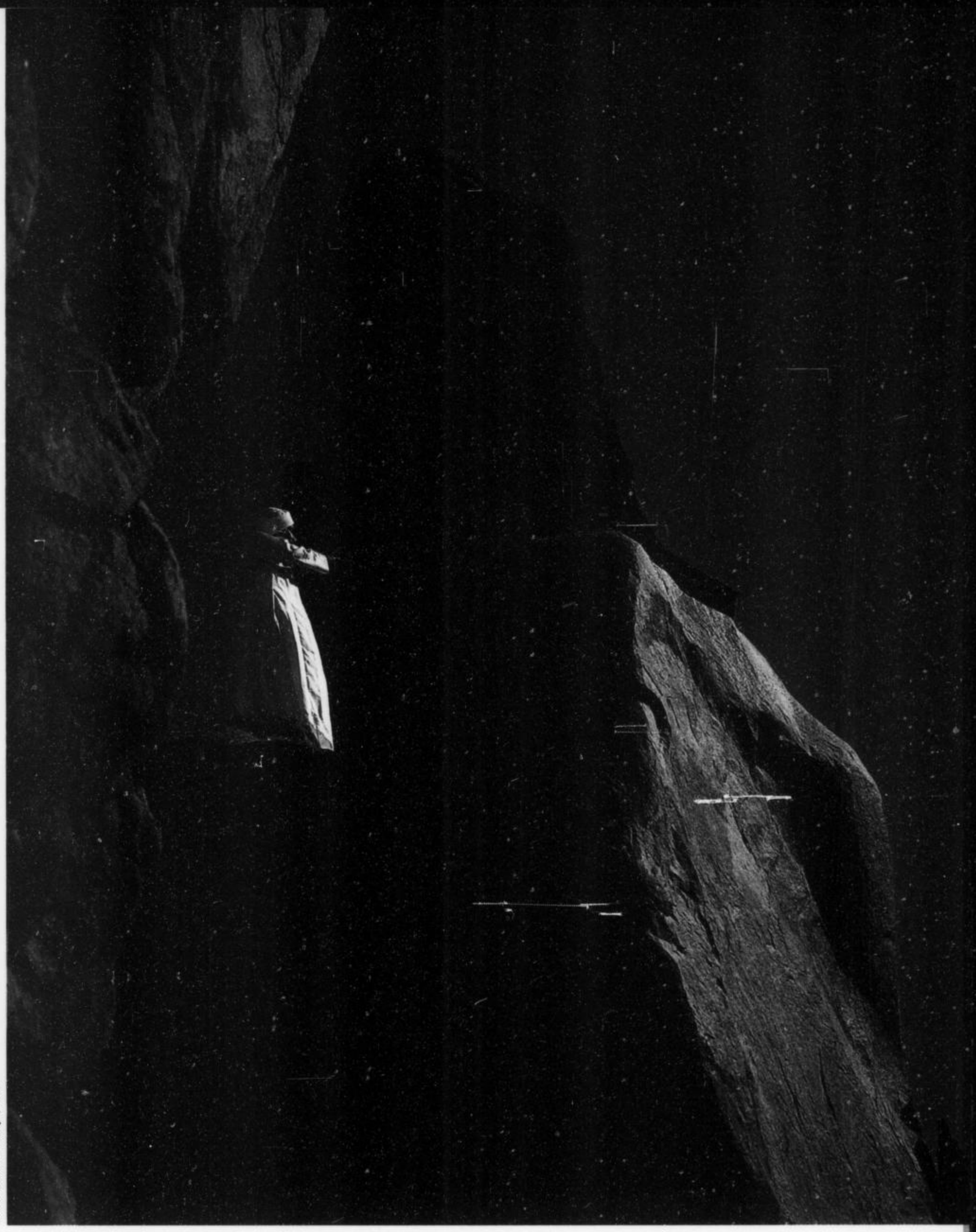
Tertiary education based on the net seems to be the obvious solution. The *virtual university* is an institution of higher education without walls—with no definite physical location, no classrooms, no conventional library. Although a minimum of face-to-face encounters among registered students and their teachers and examiners seems to be inevitable, and indeed called for, the learning process most of the time takes the form of computer networking.

The virtual university can be conceived of as the twenty-first-century variety of distance education. It needs to be stressed, however, that the virtual university eliminates, rather than bridges distance. The virtual university preserves, or recreates, the personal community of teacher and students, the audible and visible character of lectures, the live interaction of seminars. It is heir to the traditional university. But it is different both from the traditional university and from distance education in the sense that, utilizing the possibilities of interactive multimedia, it radically goes beyond the inspirations of the printed book—of the fixed linear text. The creation of a virtual university is a task of philosophical dimensions. It amounts to overcoming text-centred modern European thought.

The working language of the Great European universities of the Middle Ages was Latin. From the sixteenth century on Latin was gradually complemented by the new literary "national" languages emerging in close connection with the spread of printed books. These new languages in turn became instrumental in the creation of modern nation states—in building up centralized bureaucracies and national job markets. The university henceforth served as the apex of a national education pyramid. It appears that in the case of small nations the practical importance of national universities is diminishing.

With the rise of a global economy and the resulting need of a global education, the pressures to uphold a nation-wide cultural homogeneity are weakening. A new interest is emerging in local community life, local culture and local dialect, an interest adequately reflected by the popularity of local regional radio and television broadcasts. Local activities are gaining a new significance by the fact that they can be directly connected, through the net, to activities on a global scale, without intervention or interference from national institutions. Computer networking is global, but it is eminently suited also for the local and the particular. Global knowledge and local cultures might happily coexist and exert mutually creative influences. ■

From the clay tablet to the computer, a wealth of tools for memorizing ideas and transmitting them through time and space



S. Grandadam © Hoa Qui, Paris

The test of time

BY LOUISE MERZEAU

An idea must stand the test of time before it can be transmitted through space. In other words, it must be proof against oblivion, falsity and falsification, and at the same time remain alive, fertile and receptive to change. An idea can only do this if it is fixed, first of all in the memory, then in a material substance. This paradox is more apparent than real: fixity is a precondition and guarantee of the movement of thought. But if memory is the prime vector for the transmission of ideas, it is only when ideas are externalized by *inscription* in a medium or "carrier" that their lives are prolonged beyond the limits of a single human life. As a result of this process messages are detached from the human body which they outlive by being themselves "embodied" in a device that memorizes and diffuses them.

Traces and imprints

From the flintstone to the computer, the tools that have been used to process these media are

Mark Romine © Liaison Int./Hoa Qui, Paris

Above, a cluster of optical fibres, hair-thin strands of glass or plastic carrying information as pulses of light, play a key role in modern telecommunications.

Left, hieroglyphics carved in stone at Aswan (Egypt).

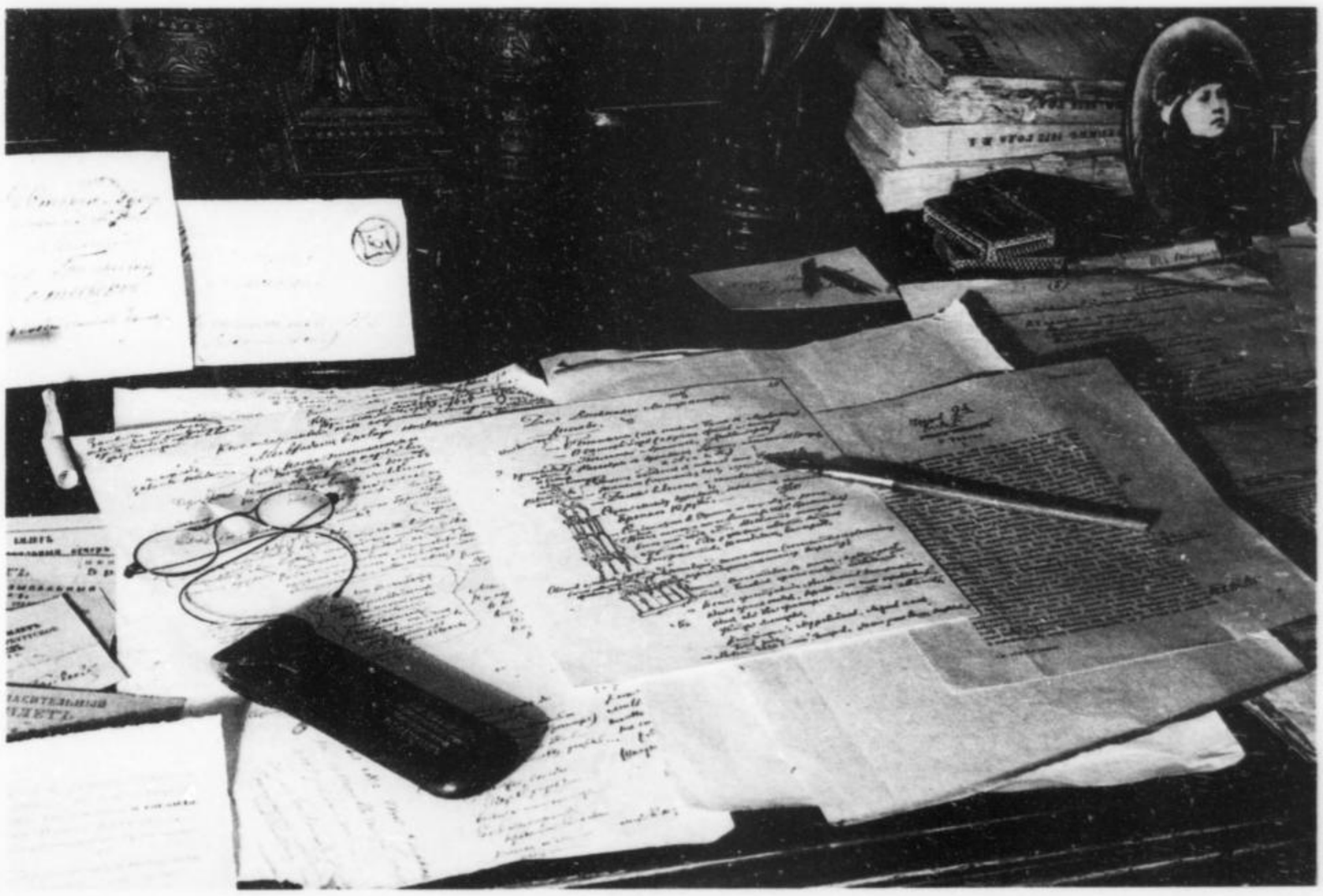
witnesses to this future-oriented process: each technical aid is a step towards the victory of the mind over the ephemerality of human life, a first step towards someone else—a person who may be located in another place or another time.

The materials on which the inscription is made are also repositories of this active memory, places where the processing operations leave their signature. Everything made by human hand is a palimpsest. When the copyist monk of medieval Europe scratched out what had been written on a sheet of parchment so that he could use it again, he left as many traces as he erased. The original text either became an illegible mess or disappeared entirely, and then another text was written on the same surface. Across the ages these scratchings-out tell the story of a technique of writing (complete with calligraphy, desk, pen, pen-knife, and ruler), a method of production and an economic system (parchment was made from animal skins which had to be limed, cleaned, dried, chalked and then scraped, costing more than the hours of work in the scriptory), and of a method of dissemination which was itself based on a certain form of knowledge (a single, inexhaustible and sacred message constantly referred to by writers and readers belonging to a small circle of clerks).

Intangible though it may seem, a computer file is not exempt from this trace-making process without which it is impossible for an idea to endure and travel. It is true that the electronic text can be modified at will and that by losing its definitive character it also loses the variants and rough drafts that show the successive stages of its composition. But the computer memory contains far more information than that which appears on the screen. With each operation—writing, copying, saving or erasing—the program records the instruction, the code and the tag in a series of figures comprising 0 and 1. While these digits may be indecipherable as such, they are nevertheless infallible witnesses to the intellectual operations involved in producing a piece of writing or an image or doing a calculation. By returning to these instructions the program can reconstitute, transmit and modify these data on another machine at a later time.

Travelling light

The evolution of techniques of inscription, storage and recording shows how the quest for greater precision has gone hand in hand with a quest for greater mobility. The purpose of recording a message is not only to make it unchangeable but also to make sure ▸



The Russian writer Fyodor Dostoyevsky's desk and the pen with which he wrote many pages of *The Brothers Karamazov* and *The Diary of a Writer*.

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- that it can move freely in space and time, when its medium can be easily handled, transported or duplicated. From the clay or metal tablet of the Sumerian era to the wax-smeared wooden polyptych of ancient Rome, from the several-metre-long *volumen* to the bound leaves of the codex (2nd-4th centuries), from the paperback to the diskette and the electronic diary, the written word has been packaged in increasingly handy as well as more reliable forms.

A thirteenth-century European student who sought access to a piece of writing recommended to him by his tutors was obliged to borrow an *exemplar* or master copy from a *stationer* and make a copy of it. His twentieth-century counterpart borrows a printed book from the library and makes a photocopy, or downloads a digital version of it from the network. In both cases, the ideas circulate after being recorded in a medium, but in the latter case the risk of the wording being altered in the course of transmission is much smaller than in the former. What applies to texts applies even more strongly to the diffusion of images. One need only think of the difficulties of copying a geographical map or an assembly diagram, to realize how far inscription techniques—engraving, printing or digitization—affect the propagation of knowledge.

Just as processes have become more reliable, carriers have become more streamlined, miniaturized and technically complex. Speed and mobility go hand in hand with capacity to record and store information. Today, thanks to progress in electronics, information can travel in real time and data circulate in billions along optic fibres.

■ *Package tours*

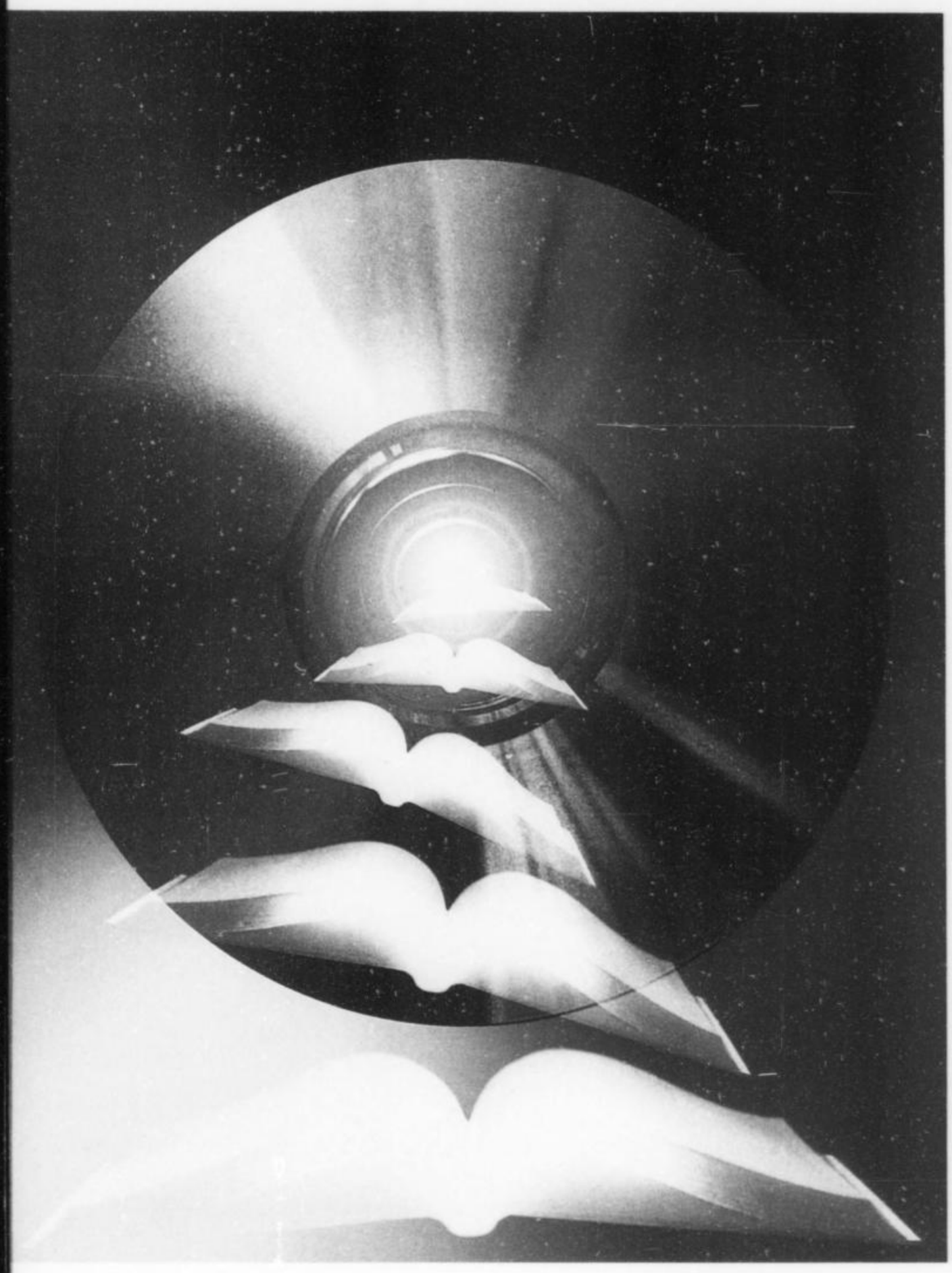
Ideas travel best in groups. Sciences, arts and religions are primarily *collections*, which assemble the physical or mental universe into a corpus where it can be reorganized so as to improve its capacity for transmission. A message is more certain to last if it belongs to a structured whole.

The origin of museums—before they set themselves the goal of safeguarding the heritage—lay in this need to concentrate scientific knowledge in a single centre of exchange and research. The Mouseion of Alexandria, 300 years before the Christian era, was a treasure-house and laboratory, a community of objects and thinkers from which knowledge and beliefs flowed outwards to the entire Hellenistic world. In the treasuries of ancient temples, medieval churches and princes, the same foundational activity—collection—opened a door to the future for works of the mind. Something more than accumulation is involved here: objects are brought together for processing, management and organization. Inventories and indexes, follow-up and cataloguing, as well as comparative study and ranking revitalize items in a collection by integrating them into generating systems.

During the French Revolution, it was the concentration of *biens nationaux*, the "national property" confiscated from the nobility and the Church, that gave rise to the notion of

Liba Taylor © Panos Pictures, London

A village meeting in southern Bangalore, capital of the Indian state of Karnataka.



Mehau Kulyk © Cosmos/SPL, Paris

An illustration symbolizing the power of a CD-ROM (Compact Disc Read-Only Memory) to store large quantities of book text (up to 250,000 A4 pages). As well as having a large storage capacity, CD-ROM enables text, image and sound to be accessed from any part of the disc.

heritage. Faced with the need to protect images, objects and buildings from *sans-culotte* vandalism, the state began to compile inventories and descriptions of them and classify them as historic monuments in a ranking that would set an order of priority for their conservation and restoration. Thus concentrated in an institution—i.e. a policy, places and agents—ideas expressed in stone, gouache or pottery gave rise to a new idea: that of common property, which belongs to all citizens and to no-one in particular, and gives substance to awareness of the national heritage.

In the sciences too, memory records and produces knowledge by organizing propositions. Grids, tables, projections, textbooks, dictionaries and encyclopaedias connect and systematize data so that increasingly complex and dynamic knowledge can be extracted from it. It is through this kind of networking that each person gains access to the memory of others.

Don't forget the guide

Once beliefs and knowledge have been concentrated into territories, we still have to find our way around them. This is where human or technological guides come in. Access to a political, philosophical, scientific or religious heritage does not necessarily imply familiarity with it.

The memory has always needed a helping hand from signposts, which have ranged from the use of "common places" (*loci communes*) by Roman rhetoricians to the hypertext of today. Taking in a set of images, using a tree-diagram to find our way into a system of thought, or hopping from one screen to the next while surfing on the net always implies a topology of information, complete with road-signs, roundabouts, highways and byways. The layout of annotations and footnotes, the numbering of chapters and pages, and the icons of CD-ROMs enable us to find our way within the world of ideas and therefore provide a basis for their transmission.

In addition to these signposts are mediators organized in institutions, groups, clubs, schools and corporations. At once structured, localized and receptive to their environment, these mediators connect thought to the social interactions that give it meaning. Their mediation fits the transmission of ideas into a strategy, a balance of power or a role-playing situation. For shared space-time, a framework of tensions and negotiations, is the basis of the collective memory. Consensus designed to buttress the social body's belief in its own perpetuation never comes about automatically; its construction calls for constant stewardship of the collective experience.

These guides for the collective memory are vested with the power to winnow out those values that should be preserved from those that should be forgotten. The controversy often sparked off by the granting of amnesties (the first of which dates from 403 B.C.) or by the definition of imprescriptible crimes highlights the ethical issues involved in the politics of memory. From the viewpoint of history and the formation of cultures, the choice of what should be recorded and what should be erased is never a matter of indifference.

The inclination of modern societies to exploit to the nth degree everything they produce poses a real question. While new technologies bring within reach the utopian dream of a total grasp of events, phenomena and messages, we must always keep in mind that remembering is indissociable from forgetting ■

FACT FILE

SAFEGUARDING THE DOCUMENTARY HERITAGE

UNESCO's "Memory of the world" programme

In 1992 UNESCO launched a "Memory of the World" Programme which seeks to protect and facilitate access to the world's documentary heritage. The documents, images and sounds stored in libraries and archives which comprise this heritage are a major part of the collective memory, reflecting the diversity and originality of peoples and cultures.

Much of the world's documentary heritage disappears through "natural" causes, e.g. acidified paper that crumbles to dust, leather, parchment, film and magnetic tape attacked by light, heat, humidity or pollution. Libraries and archives are also regularly afflicted by external events which may be catastrophic unless anticipated by preventive measures: flooding, fire, hurricanes, and earthquakes as well as acts of war, criminal activity and accidental or deliberate displacement.

The UNESCO Programme has two complementary objectives—to safeguard endangered documentary heritage and to democratize access to it. With this in view, it seeks to develop products such as text, sound and image banks which could be made available on local and global networks, as well as compact discs, books, postcards, microfilm and other forms of reproduction, and presence on the Internet.

A "Memory of the World" register

The programme encourages governments to set up national committees in order to increase awareness of the importance of safeguarding their documentary heritage. The committees can inaugurate preservation and information projects they would like to see included on the "Memory of the World" Register. This Register, similar in some ways to UNESCO's World Heritage List, is an inventory of the documentary heritage identified as having world significance. An International Advisory Committee, whose members are appointed by UNESCO's Director General, grants the "Memory of the World" label to projects proposed by the national committees and recommends their inclusion on the Register.

The selection criteria are clearly defined. Documentary heritage is considered to be of world significance if it has had a major *influence* on world history; if it makes an outstanding contribution to our understanding of the world at a particularly important *time* or if it sheds light on a *place* which played a crucial role in world history; if it is associated with a *person* or *people* who have made an outstanding contribution to world history or culture; if it documents in a noteworthy manner a *subject* or major theme of world importance; if it is an important example of an outstanding *form* or *style*; if it has marked social, spiritual or cultural *value* which transcends a national culture.

National committees already exist in 26 countries. The first international conference on the "Memory of the World" was held in Oslo (Norway) from 3 to 5 June 1996 and was attended by some 150 delegates from 65 countries. A resolution adopted by the Conference invites all nations to establish national "Memory of the World" committees and to play an active part in the programme.

Pilot projects

Several pilot projects currently under way are using leading-edge technology to preserve precious and fragile documents and to facilitate access to them. With support from UNESCO and the Library of Congress in Washington D.C. (U.S.A.), the library of the Russian Academy of Sciences in St. Petersburg is producing a CD-ROM of the Radzivill Chronicle, a 15th-century illuminated manuscript relating the history of Russia from the 5th to the 13th centuries. The *Asociación de Iberoamerica* (ABINIA) has proposed a project to safeguard examples of the 19th-century press in 12 Latin American countries (via microfilm, digitization, exhibitions and publications); a computerized inventory of some 6,000 newspaper titles has already been made. In Yemen a national committee has been set up to select the most precious manuscripts found in the ceiling of the Great Mosque of Sana'a, and a demonstration CD-ROM has been produced in Cairo (Egypt). In a good example of a regional project, thousands of old postcards (1890-1930) relating to 16 countries of the Economic Community of Western African States (ECOWAS) are being recorded on a CD-ROM. Some 30 other projects are in the pipeline, including the restoration and preservation of 7,000 hours of audio materials of Chinese folk music, Tamil palm-leaf manuscripts in India, Vietnamese films and Laotian manuscripts.

Lastly, so that UNESCO can play its role to the full as co-ordinator and catalyst, three inventories in the form of regularly updated databases are being made in co-operation with a number of professional bodies:

- An inventory of library collections and archive holdings which have suffered irreparable damage since 1990, to be published as *Lost Memory—Libraries and Archives Destroyed in the Twentieth Century*;
- A world list of endangered library collections and archive holdings;
- An inventory of ongoing operations to protect documentary heritage.

UNESCO has also published a brochure outlining the programme's technical, legal and financial framework and its working structures. This document, entitled *Memory of the World, General Guidelines to Safeguard Documentary Heritage*, is available free of charge (in each of UNESCO's official languages). ■

For further information, contact Abdelaziz Abid, head of the "Memory of the World" Programme, Division of the General Information Programme, UNESCO, 1, rue Miollis, 75732 Paris Cedex 15, France. Internet: http://www.unesco.org/cii/en/accueil.html

INDEX TRANSLATIONUM

The *Index Translationum* is an international bibliography of translated works published all over the world. It first appeared in 1932, and has been published annually since 1948. In 1993 the paper edition was replaced by a cumulative CD-ROM edition that is updated every year.

The *Index Translationum* is a unique working tool produced thanks to ongoing international co-operation. The 1996 edition contains some 830,000 bibliographical entries for books translated and published in over 100 countries ranging from Albania to Zimbabwe and covers a vast range of subjects. Almost 200,000 authors are listed and over 400 languages mentioned. (Periodicals, articles from periodicals, patents and brochures are not included.) ■

The current *Index Translationum* may be ordered directly from:
UNESCO Publishing, Promotion and Sales Division, 7, Place de Fontenoy, 75352 Paris 07 SP, France.
Fax: (33) (0)1 45 68 57 41. Web site: http://www.unesco.org

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ROUTES OF DIALOGUE

Cultural identities have been created over time by an interplay of cultural influences and encounters and by movements from one land or region to another. To find out more about how these movements have influenced our world, UNESCO launched a series of projects in 1988 to study the routes that have connected the world's peoples from time immemorial. Scientists and scholars from all over the world have been mobilized in a far-reaching enterprise of research, including four expeditions.

The first, *The Silk Roads: Roads of Dialogue*, highlighted the pivotal role played by the movement of people, ideas and values in the growth of cultures. It has given rise to numerous initiatives and some 40 publications, including six produced by UNESCO. The *Slave Route* project, inaugurated in Benin in 1994, will study the causes, mechanisms and consequences of the Black slave trade, which transformed the history of Africa and the Americas. The *Iron Road* project, launched in 1991, highlights the impact of African metallurgy on the evolution of African societies and cultures. The *Roads of Faith* programme, which marks the international, intercultural and interreligious importance of Jerusalem, also began in 1991. It seeks to enhance understanding of the close ties that grew over the centuries between the three monotheistic religions. The *Routes of al-Andalus* project between Europe, the Arab world and sub-Saharan Africa, launched in 1995, is designed to highlight the lessons of the intercultural heritage of Muslim Spain where, between the 8th and the 15th centuries, three cultures created a cosmopolitan civilization through three religions. ■

THE UNESCO COLLECTION OF REPRESENTATIVE WORKS

The UNESCO Collection of Representative Works, which was created in 1948, encourages the translation, publication and distribution in major languages (English, French, Spanish and Arabic) of works of literary and cultural importance that are not well known outside their original national boundaries or linguistic communities.

The works that have been translated under this cultural co-operation and exchange programme have been brought out as co-editions in partnership with publishers from all over the world. To date, the catalogue of these works contains some 1,000 titles from more than 80 countries, translated from 100 or so different languages. The Collection endeavours to reflect the varied pattern of the world literary heritage in anthologies arranged by theme, type and country. It includes works expressive of contemporary minority cultures and languages as well as traditional works. By translating and distributing their works, the Collection has brought wider international recognition to authors including Nobel laureates Yasunari Kawabata and George Seferis.

As well as being nationally representative and possessing literary qualities, works published in the Collection should be in keeping with the ideals and principles of UNESCO and may not, therefore, advocate war, racism or violence in any form. On the contrary, they should encourage tolerance, peace and mutual understanding among peoples and their cultures. ■

For further information and to obtain catalogues, contact:
The UNESCO Bookshop, 7, Place de Fontenoy, 75352 Paris 07/SP, France.
UNESCO Publishing, 1, rue Miollis, 75732 Paris Cedex 15, France.

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The January 1986 issue of the *UNESCO Courier* (*Treasures of World Literature*) was entirely devoted to the UNESCO Collection of Representative Works.

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- "A silken bond between East and West", Ahmad Hasan Dani, March 1989
- "Rediscovering the Silk Roads", November 1988 (*A World Decade for Cultural Development*)

ENTIRE ISSUES OF THE *UNESCO COURIER*:

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UNESCO,1, rue Miollis, 75732 Paris Cedex 15, France
Tel: (33) (0)1 45 68 48 12
Fax: (33) (0)1 45 68 55 88

UNESCO/Gil Jacques, Montréal

COMMENTARY

Federico Mayor

From ideal to action

In his latest book, *UNESCO—an ideal in action, The continuing relevance of a visionary text*, Federico Mayor takes the Constitution of the Organization he has headed for almost ten years as the starting point of a wide-ranging inquiry into the meaning and future of international intellectual co-operation. We publish below the introduction to this work.

Does it take a cataclysm on the scale of "the great and terrible war" that ended in 1945 to stir the conscience of the world and bring those who hold the levers of political, economic and spiritual power to summon up the same dedication, drive and determination as inspired those who, at that time, undertook to build a better world?

Is humanity fated to find the willpower and the strength to take vigorous collective action only when it is treading the very brink of the abyss? Is it only in times of acute crisis that it is capable of relegating short-term interests and concerns to second place and encouraging the leaders of the nations, the most powerful nations in particular, to be inspired by a historical and global vision?

The twentieth century is drawing to a close. It has witnessed brilliant triumphs of human ingenuity and a succession of unprecedented technological revolutions that have made possible the production of goods and services in a quantity and a variety that would have been unimaginable at the end of the previous century. Substantial progress has been made in education, health, communication and many other fields. This century has seen the liberation of scores of peoples, and political and geopolitical upheavals whose scope and impact have scarcely any parallels in the past. On the other hand, it has been scarred by wars whose scale, ferocity and sheer destructive power are also without historical precedent.

UNESCO—AN IDEAL IN ACTION
by Federico Mayor

in collaboration with Senia Tanguiane,
UNESCO Publishing
"Cultures of Peace" series, Paris. 1997, 124 pp
(French version, 1996, 131 pp).

Seen overall, the direction in which the world is moving on the eve of the twenty-first century is still disturbing, despite the hopes aroused by such developments as the end of the cold war, the ending of apartheid and the peace achieved in El Salvador and Mozambique.

The spread of violence and of lethal conflicts, claiming many victims every day, arouses terror, causes large-scale displacements of populations and lays waste whole regions. The rise of fanaticism of all kinds and intolerance in its various manifestations have left people in a state of shock and pose a threat to peace even when they do not degenerate into civil war. Acts of genocide "announced" well in advance are committed while institutions that should prevent or put a stop to them but are unprepared to do so look on in resignation. Although some successes have been achieved in efforts to protect and regenerate the environment, the general tendency world wide has been towards a deterioration that ultimately presents a serious threat to human survival. Growing inequality creates tensions between groups of countries and cleavages within nations. Poverty, far from diminishing, is worsening both in the industrialized and in the developing countries. Entire peoples are faced with a situation where the general trend is towards impoverishment while a minority grows richer.

Despite some undeniable progress, democracy remains a tender plant, and it is far from having become a normal feature of the daily life and political culture of citizens. Human rights and fundamental freedoms are still regularly violated, and broad swaths of the population, young people in particular, are marginalized and excluded from debates about the future in many countries, including some that set themselves up as champions of human rights.

Failure to live up to ideals and values that formerly gave hope to millions of men and women, spurred them on and helped them to look beyond short-term interests, and the misappropriation or erosion of those ideals and values have left people with a sense of emptiness, disillusionment, confusion and bitterness. Growing feelings of frustration and humiliation are in danger of causing violent explosions, if nothing is done to calm them.

It is clear that no nation is entirely exempt from a crisis of values, or perhaps one should say a moral crisis.

And yet. . . . Humanity possesses the knowledge and resources with which it could put an end to most of these crises, and could eliminate, reduce or at least considerably dilute the causes of these instances of appalling inequality, injustice, discrimination, exclusion, frustration and humiliation. On emerging from "the great and terrible war", it provided itself with a set of mechanisms for concerted action such as would enable the nations of the world and men and women of goodwill to work together for world peace and the common welfare and well-being of all peoples. Not the least among those mechanisms is UNESCO itself.

What is lacking is the determination to overcome national self-interest and short-term concerns and to set out upon the road of solidarity, the courage to proclaim and to convince others that, in an increasingly interdependent world, peace and prosperity are unsure and fragile unless shared by all.

This determination is something that has to be created. The United Nations system bears a great responsibility in that respect; and the organizations of which it is composed likewise need to show courage and perseverance in bringing this determination into being and exerting a greater influence on the major decisions affecting the world. By virtue of its ethical mission, UNESCO probably has a pioneering role to play in this undertaking.

Most of the organizations making up the United Nations system are celebrating their fiftieth anniversaries, making this an opportune moment to launch initiatives to help restore to the system the strength of conviction, the vigour and commitment it had in its early days. An effort to rediscover the spirit, the will and the hope so remarkably expressed in UNESCO's Constitution, and to educe from it pointers for the action to be undertaken in this time of transition, certainly counts as one such initiative.

The political, ethical and philosophical message of the Constitution is contained in its Preamble and its Article I. The whole message, one might say the whole secret, of a great text—and UNESCO's Constitution, by the lasting relevance of its humanist message, is one—is not revealed at a first reading. What we read into such a text is largely determined by the historical context, and what holds our attention is usually only what appears in the light of current events to be particularly important and what is of prime concern at that given time.

To read the Constitution and the records of the Conference that drafted and adopted it is, in the circumstances of today, to have one's eyes opened to certain aspects of the message contained in the text that have not always received the attention they deserve. Thus, in the present context the principal ideas proclaimed and the key concepts contained therein take on an even wider applicability and even greater force than before. This is the case, in particular, with such concepts and ideas as peace, the democratic principles of the dignity, equality and mutual respect of men, the intellectual and moral solidarity of mankind, the ideal of equality of educational opportunity for all, the free exchange of ideas and knowledge, the common welfare of mankind and increasing and diffusing knowledge. ■

GREENWATCH

Save Our Soils!

by France Bequette

The conservation of water and air quality and the protection of plant and animal life are causes that mobilize plenty of support. Soil conservation is a cinderella in comparison. Little studied, little known and neglected in public policy-making, soil is perhaps too humdrum a subject to attract attention. It is also a discouragingly complex one.

When the earth was less populated, its direct users—farmers, foresters and builders—respected this surface layer which is essential for life. This is no longer the case. All countries, developed and developing alike, are experiencing various forms of land degradation. The earth's surface is being eviscerated by mining, pierced with oil wells, churned up and concreted over. It is treated with "unnatural" fertilizers, herbicides and pesticides in order to boost agricultural output. Can we go on exploiting this natural resource indefinitely?

Soil is the thin unconsolidated veneer (from several centimetres to several metres thick) of the lithosphere, the top layer of the earth's skin that is subject to weathering. It consists of fragments of parent rock weathered by the combined effects of water, air, temperature and the plant, animal and human life which it supports. Pedology, a branch of applied geology that studies the chemical, physical and biological characteristics of soil, as well as its evolution and distribution, appeared in the late nineteenth century. But it is only in the last fifty-odd years that we have become familiar with this organized environment which, by sustaining plants and animals, nourishes human societies and is the basis of agriculture.

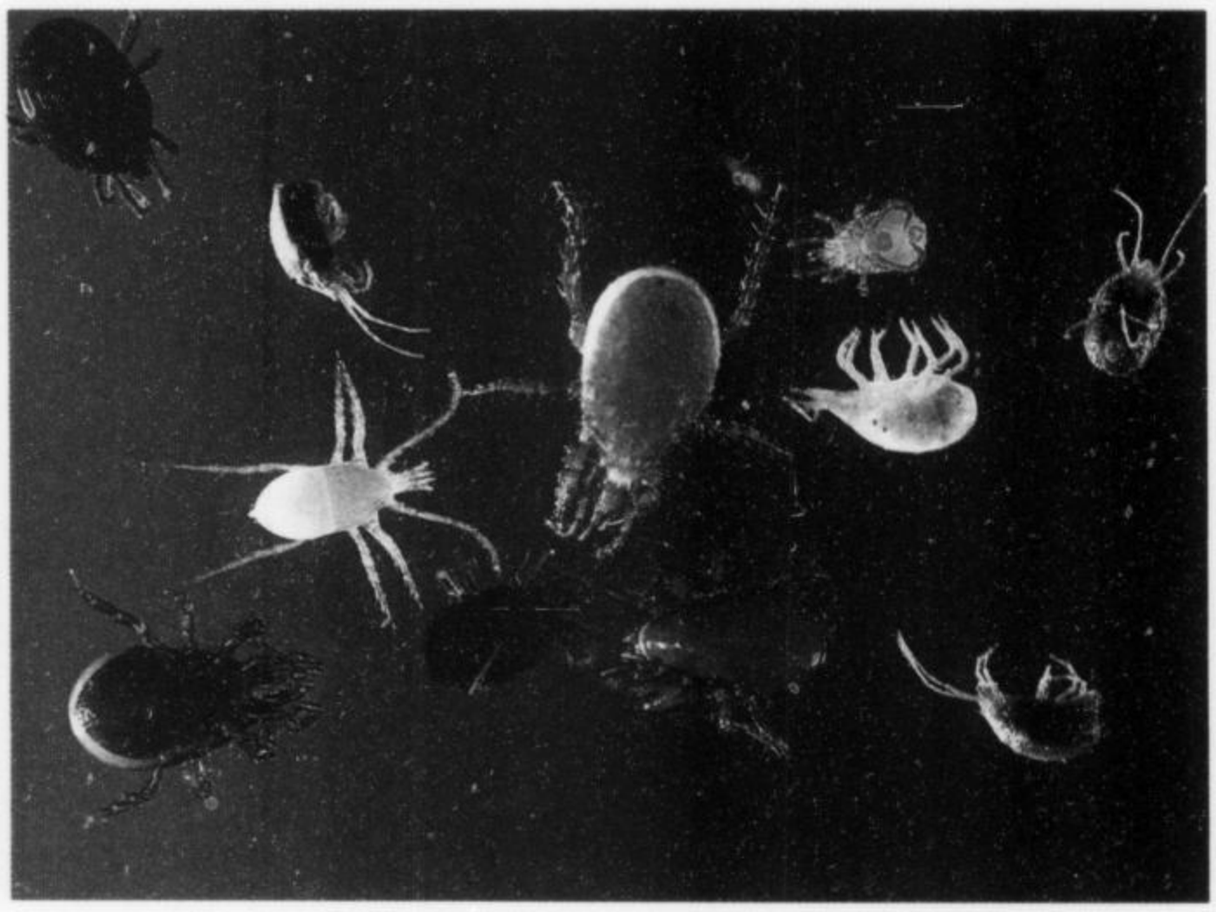
Ben Simmons © DIAF, Paris

Ferns and maple in a Japanese garden.

A LITTLE-KNOWN STRUCTURE

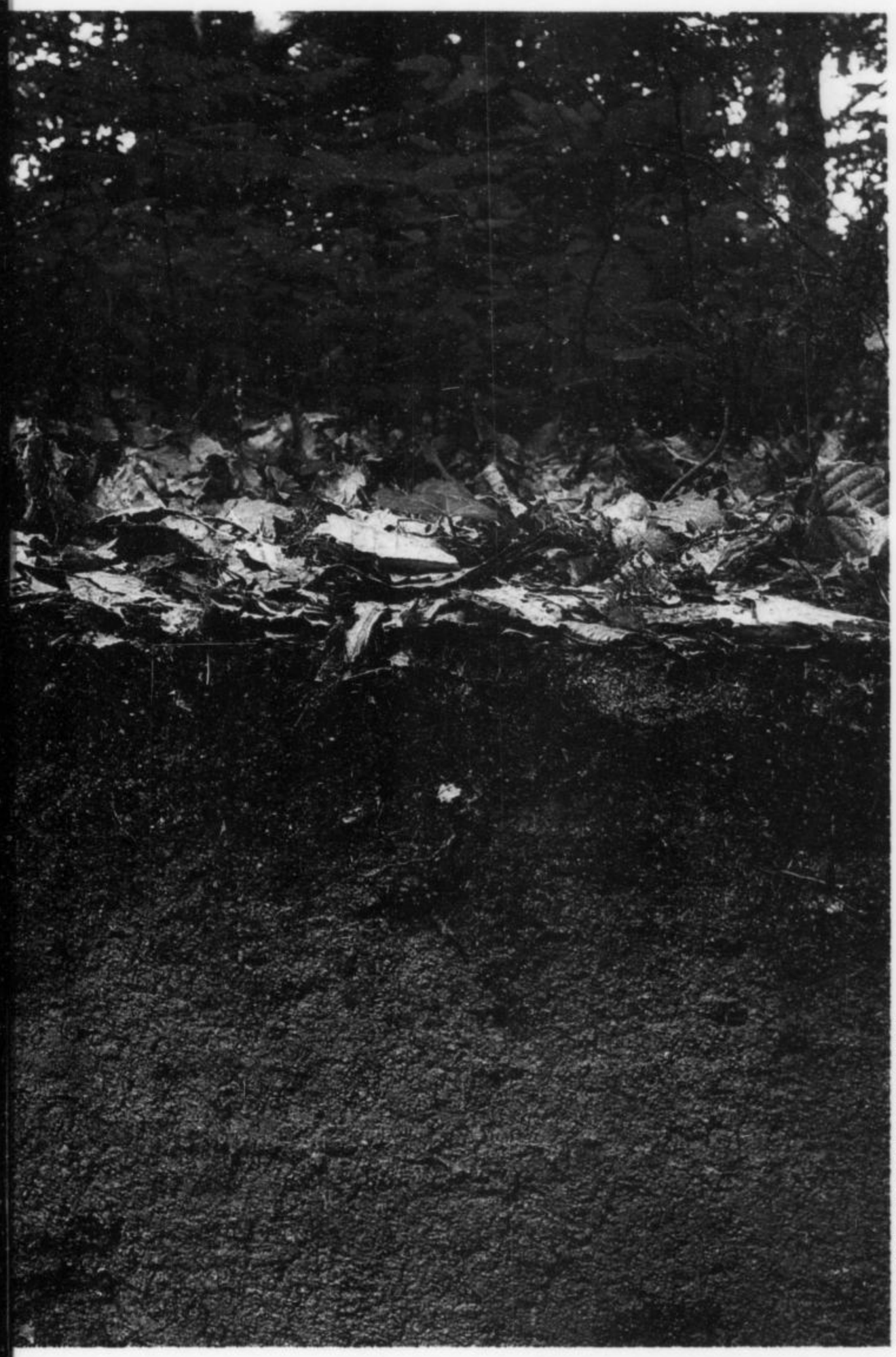
Soil is divided into three strata or layers that specialists call "horizons". They are differentiated by the proportion of minerals or organic matter in their composition, variations in colour, texture and porosity, and by their water and carbon dioxide content.

The mobile top layer of litter is easy to observe with the naked eye. It consists of plant debris (branches and leaves, pine needles, dead grass, mosses, seeds and fruit) and animal debris (corpses and droppings). Below it is the humus-rich horizon of brown or blackish earth containing the



Yves Coineau © Laboratoire des Arthropodes, MNHN, Paris

Grass mites.



A vertical section of soil in a forest.

Yves Coineau © Laboratoire des Arthropodes, MNHN, Paris

Microarthropods from the forest floor.

tains many plant and animal species and many biological cycles transit through it.

A nutrition function: it contains elements necessary for life such as mineral salts, air and water, which it accumulates and puts at the disposal of plants and animals. In short, it plays "the role of a larder which varies in size and abundance; it also retains water which it returns to plants as they need it. Much of what plants eat, drink and breathe comes from the soil."

A filtration function: it is a porous environment which acts as a purifier and provides the water (wells, springs, rivers) which passes through it with its chemical and biological qualities.

A material function: it provides raw material for construction and other activities (buildings, pottery, ores, etc).

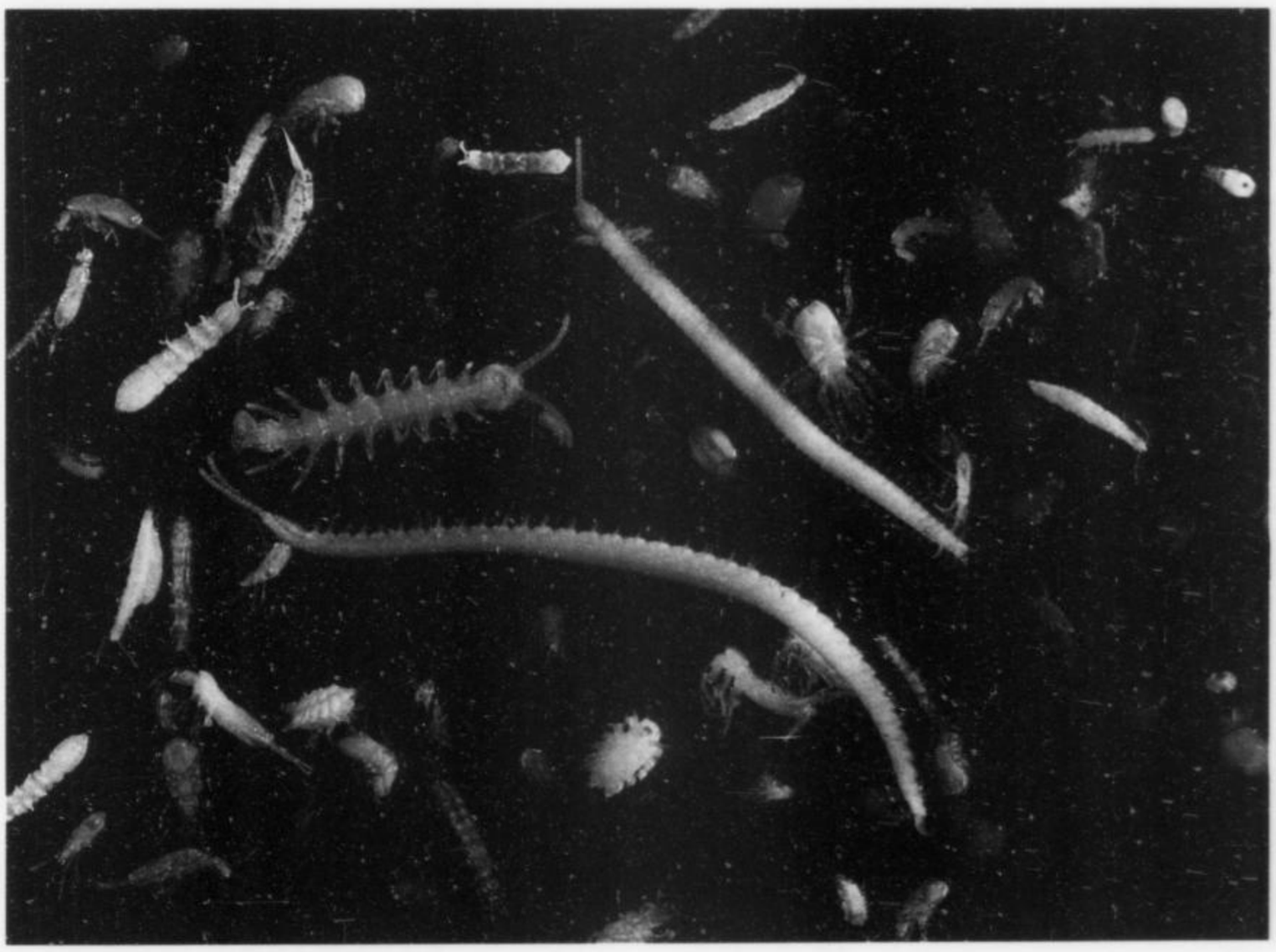
A BIOLOGICAL CARPET

An incredible diversity of underground animal and plant life proliferates away from curious eyes. Yves Coineau, a professor at France's National Museum of Natural History in Paris is a specialist in soil microfauna. "Lots of people have heard about the fabulous mass of marine plankton," he writes, "but do not know that whenever they put a foot down they ▸

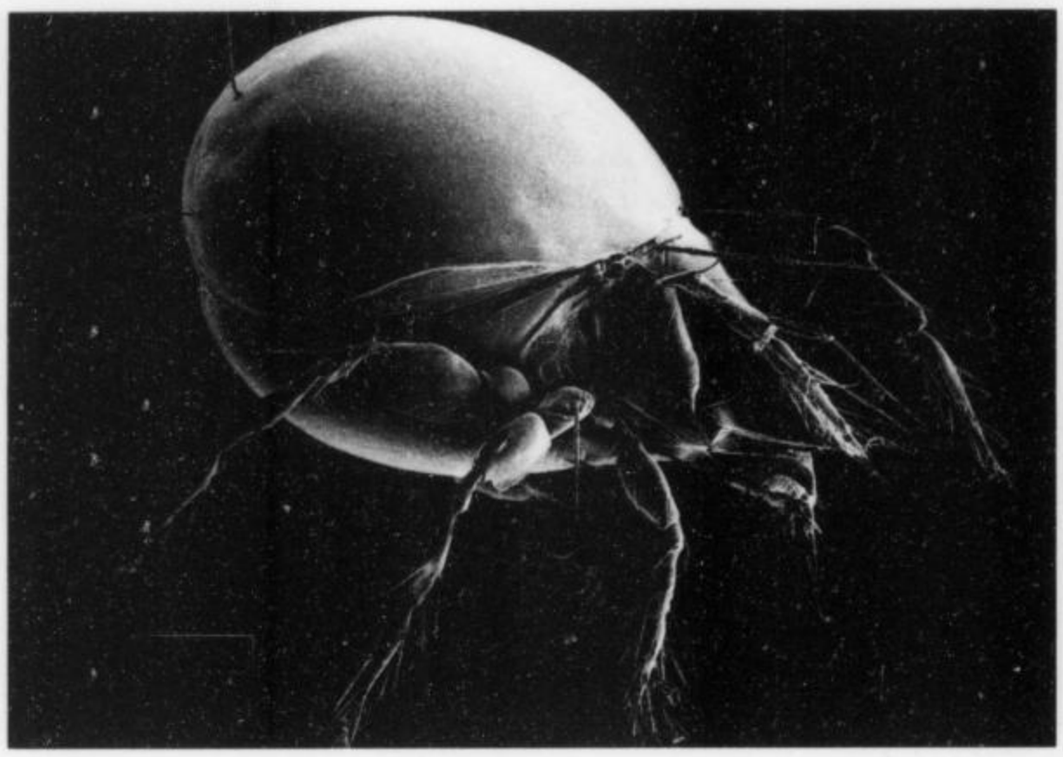
decomposed debris of the litter and mineral particles brought up from the deep layers by earthworms. The quality of this horizon is crucial for plant growth. While life is largely absent from its compact parts, it is extremely intense in channels formed by the decomposition of dead roots and holes dug by earthworms. The third horizon is the interface between the layer of humus and the parent rocks. Lighter-coloured than humus, it contains sand, gravel, silts and clays.

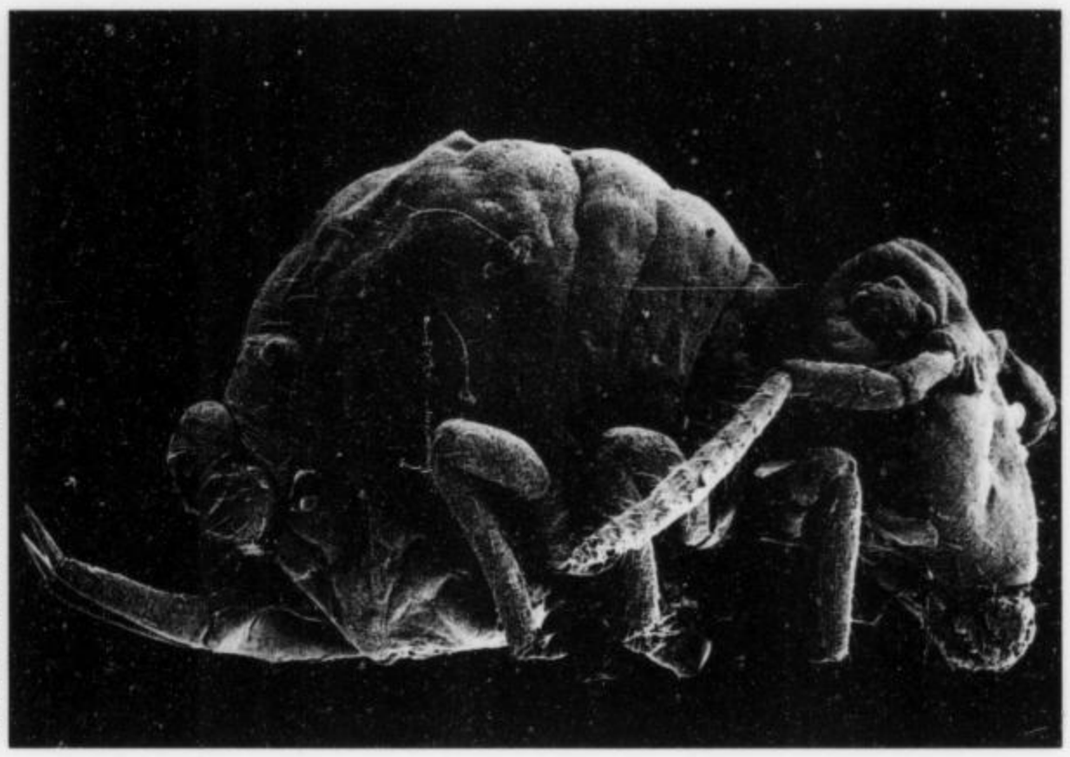
Soil performs many functions, but four of them are particularly important, as French agronomist and pedologist Alain Ruellan points out in his book *Regards sur le sol.*

A biological function: soil con-



Yves Coineau © Laboratoire des arthropodes, MNHN, Paris





Régis Cleva © Laboratoire des Arthropodes, MNHN, Paris

Above, a springtail, a primitive wingless insect commonly found in soil.

Left, a mite of the Oribatidae family.

▶ stamp on myriads of tiny animals forming dense, varied and active populations which are in many ways reminiscent of plankton. Walkers think they are tramping over an inert mineral soil whereas in fact they are moving about on a constantly changing biological carpet."

Pedozoology, the study of animal life in the soil, is a recent science and it is far from having drawn up a complete inventory of its field. To get some idea of the difficulties it faces, we should bear in mind that examination of the living matter in the first 15 centimetres below the surface of the average meadow reveals (per gram) a flora of 100,000 algae, 600,000,000 bacteria, 400,000 fungi, and a microfauna (per cubic decimetre) of 1,551,000,000 protozoans (unicellular creatures), 51,000 metazoans (creatures consisting of several cells) including 50,000 nematodes (worms). In Paris Yves Coineau has created the world's first microzoo where vistors peer through microscopes to see surrealistic creatures, including his favourites, mites (Acarina) and springtails (Collembola). He tracks them down not only in the soil but in our beds, where they find a lodging after going through an extraordinary process of adaptation.

THE PRESSURE OF HUMAN ACTIVITY

We live in close interdependence with the soil. "The Hebrew word *adâmah* means soil," Alain Ruellan points out, "and is the origin of the word 'Adam', the first man." In Japan there are shinto temples dedicated to soil and the Japanese sign for "soil" symbolizes the rooted plant. This veneration for the soil reflects awareness of its mystery and importance. Soil is the very root of humanity. If it disappears, humanity disappears.

"It's all a question of balance between the functional capacities and renewability of soils and the excessive pressure of human activities," Ruellan maintains. "All over the world there are too many examples of seriously modified soils, of soils seriously wounded by exploitation—erosion of course but also destructuration, compaction, impoverishment and declining biological activities, excessive desiccation, accumulation of toxic salts, leaching of fine and nutritious elements, and pollution."

Further reading:

Guidelines for soil survey and land evaluation in ecological research
by R.F. Breimer, A.J. van Kekem and H. van Reuler.
MAB Technical Notes 17, UNESCO 1986.

Agricultures,
Cahiers d'études et de recherches francophones,
vol 1, n° 1, March-April 1992.

Regards sur le sol
by Alain Ruellan and Mireille Dosso,
Foucher, Paris, 1993.

Le sol
by Michel Robert, Masson, Paris, 1996.

The 16th World Congress of Soil Science, chaired by Alain Ruellan, will be held from 20 to 26 August 1998 at Montpellier (France). The working languages will be English, French, German and Spanish. Secretariat: Tel: (33) (0) 4 67 04 75 38; Fax: (33) (0) 4 67 04 75 49; e-mail: isss@agropolis.fr

According to the Food and Agriculture Organization of the United Nations (FAO), there are an estimated 3,031 million hectares of cropland worldwide, 877 million in developed countries and 2,154 in the developing world. Michel Robert, of France's National Institute for Agronomic Research (INRA), has noted that "the natural fertility of the great tropical forests has always been an illusion. In reality, they are a fragile ecosystem and as soon as they are affected by deforestation important and irreversible changes take place; these concern more than 11 million hectares each year in tropical areas."

In the forest, there is considerable soil stability and low erosion. But mechanized clearance causes the soil to become compacted and impermeable. Water run-off and erosion ensue. Erosion has many causes, including overgrazing and increased cropping to keep pace with demographic growth, as well as deforestation. Annual soil loss is thought to affect between 5 and 7 million hectares a year, according to FAO estimates; if erosion continues on this scale, from 20 to 30 per cent of cropland will disappear between now and the year 2000.

Soil should now be regarded as a non-renewable resource, just like peat, coal or oil. Nature needs from 100 to 400 years to create 10 millimetres of topsoil and from 3,000 to 12,000 years to form a soil layer equivalent to the length of this page. Humanity cannot wait so long. Soil protection is urgently needed. ■

ZIMBABWE'S IVORY DILEMMA

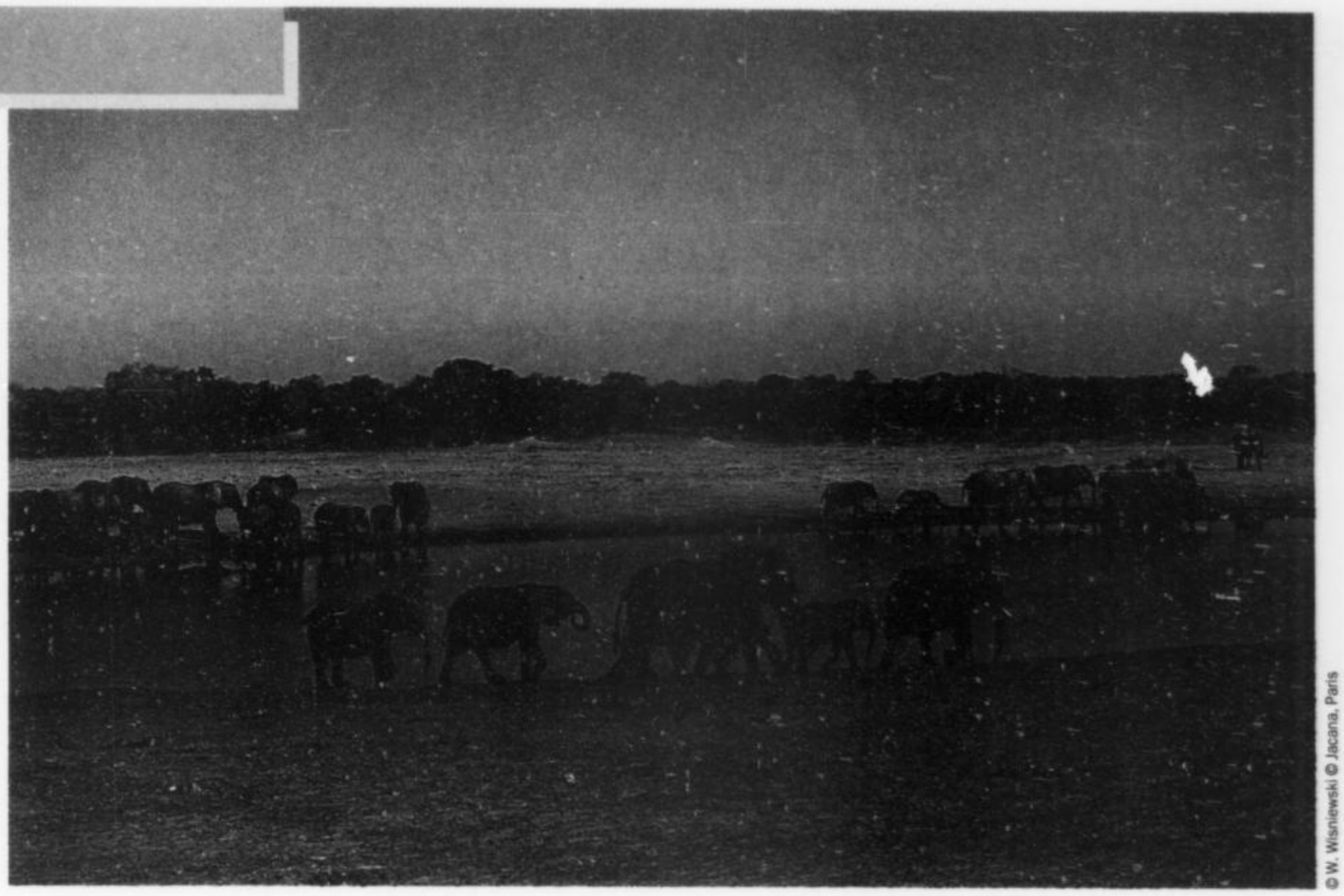
Zimbabwe has told the secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) that it would like to sell its 33-ton reserve of elephant tusks to generate some $4 million. There are an estimated 64,000 elephants in Zimbabwe, where they are a protected species, and their numbers are rising in contrast to the trend in other African regions. Elephant herds often cause extensive damage to crops, and proceeds from the ivory sale would be earmarked for compensation to farmers. But the sale of ivory from elephants, which are regarded as an endangered species, has been banned by CITES since 1990. The next meeting of CITES will be held in Harare, and its decision is anxiously awaited. ■

GREEN HOTELS

In many North American hotels it is not unusual for guests to find a small sign in several languages posted in the bathroom: "If you'd like us to change your towels, throw them in the bathtub; if not, hang them on the towel-rail." This is an excellent way to economize on water, energy and polluting detergents. If we don't change towels every day at home, why should we do so in hotels? ■

AROMATIC RICE

Scientists at the Laboratory of Genetic Resources and Tropical Plant Improvement, part of the French National Scientific Research Institute for Development through Co-operation (ORSTOM), have confirmed that the aroma of scented rice is determined by a major gene located on chromosome 8. Thanks to this piece of gene-mapping it will be possible to speed up selection of plants combining aromatic qualities with high productivity and resistance to disease. ■



© W. Wisniewski © Jacana, Paris

COUNTERFEITING CFCS

Chlorofluorocarbons (CFCs), enemies of the ozone layer, are used by police to make fingerprints appear clearly on porous surfaces such as paper. Scientists in the United Kingdom, who are trying to find a substitute, have successfully tested a number of HFCs (hydrofluorocarbons, which contain no chlorine and are ozone-friendly) on thousands of forged cheques. Police forces all over the world are interested in this new discovery. ■

INDONESIA LOOKS TO THE SUN

The World Bank has approved a loan of $44.3 billion to Indonesia to help encourage the use of solar energy. At present over 115 million out of an estimated 195 million Indonesians have no access to electricity. Thanks to solar power, which is already being used by over 20,000 rural Indonesian households, children can study in better lit environments after sunset, and adults can continue income-producing activities at home. Customers can buy a solar unit on credit by making down payments of about $75 to $100, then paying $10 per month for four years. The Bank's Global Environmental Facility grant will be used to help households make down payments. ■

BOUNCY RUBBER

Rubber is a hydrocarbon produced in its natural form by numerous plants. It is found blended in varying proportions in latex, a milky liquid exuded by various species, including trees, vines, succulents and herbaceous plants. The best rubber-producing species is a softwood tree from South America (*Hevea brasiliensis*), which was introduced into Asia in the 19th century. This tall tree only prospers in humid tropical or equatorial climates. Wild specimens may live to be over 100 years old. A cultivated hevea produces a daily average of 30 grams of rubber, obtained by tapping. To make a car tyre 170 heveas need to be tapped; 670 for a lorry tyre. Today through the efforts of the French Centre for International Co-operation in Agronomic Research for Development (CIRAD), 120,000 hectares of particularly high-yield hevea trees are growing in west Africa. ■

Frédéric © Jacana, Paris

PALMYRA *faces that belong to eternity*

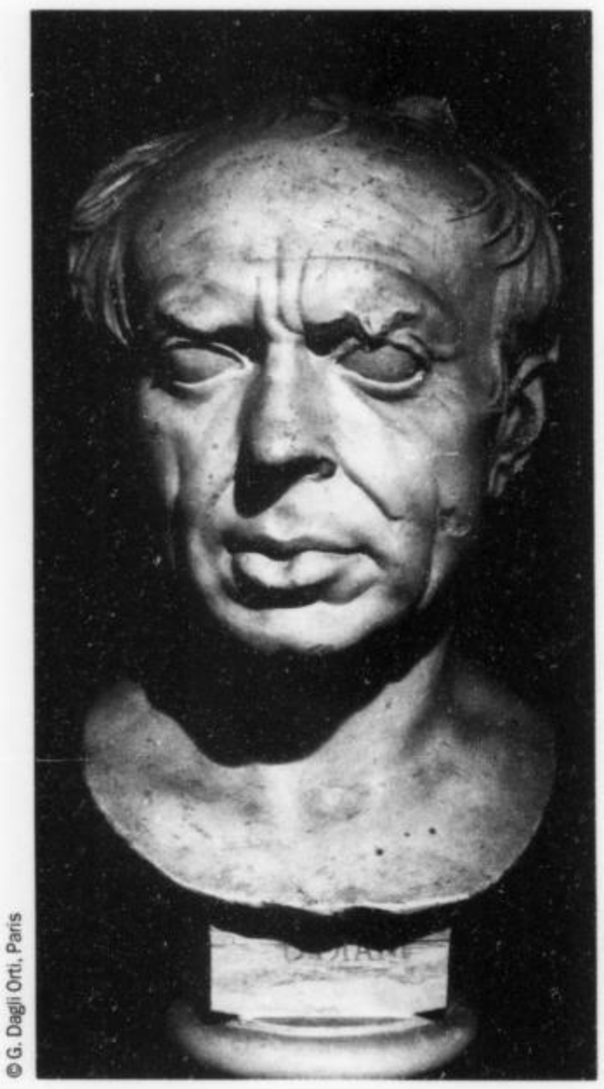
by Mahmoud Zibawi

Palmyra, "city of palms", was founded in an oasis between the Orontes and the Euphrates in the heart of the Syrian desert towards the end of the third millennium B.C. It was the capital of Palmyrene, an ally of Rome at the beginning of the Roman empire (late 1st century B.C.). It enjoyed a golden age during the reign of Zenobia in the third century A.D., until it was sacked by the Roman emperor Aurelian in 273. In the following centuries it recovered some of its importance, but never again played its former role. Its ruins are among the most important of late Antiquity. One original feature of Palmyra is funerary sculpture whose hieratic images and spiritual intensity transcend Greek, Roman and Persian influences and foreshadow Byzantine art.

The finest specimens of Palmyrene sculpture were produced during the first three centuries of the Christian era, at a time when the *pax romana* encouraged long-distance trade. They belong to the art of the Roman Middle East, where Hellenistic influence prevailed in an area stretching from Egypt to the borders of Mesopotamia. The blending of civilizations and cultures in the melting pot of the Roman Empire infused a new spirit into art. The classical models of Rome, which still lived on, were taken up and recreated rather than imitated. The art of Palmyra incorporates features that came from the Persian empire, while also displaying the influence of local Syrian and Mesopotamian traditions and of Oriental traditions in general.

A salient feature of this sculpture is that each figure is presented frontally and as an individual. This concern for individuality is particularly noticeable in the funerary statues, in which Palmyrene sculptors gave their own twist to classical Roman portraiture, which in the second century A.D. was moving away from realism towards idealization. The extraordinary variety of types produced by the realism of early Roman statuary is replaced in the imperial period by a gallery of idealized portraits. Strict individual resemblance is abandoned. Artists depict personages with imaginary features. Figures from the past and portraits of contemporaries are reinvented. Rulers and subjects alike are shown with divine attributes and are masked with idealized faces.

This trend in Roman statuary had a profound effect in the eastern provinces of the Roman empire. Emphatic stylization deliberately transgressed the canons of naturalistic beauty. An attempt was made to purge the human face of earthly affinities and invest it with celestial qualities. In the painted portraits of Fayoum in Egypt and the stone carvings of cities in the Arab desert alike, the face is shown as transcending place and time. With its thin lips, sharp nose, inordinately enlarged eyes and open gaze, it belongs to eternity.



This marble head of the Roman general and politician Caius Marius (1st century B.C.) is a masterpiece of realistic Roman statuary.

© G. Dagli Orti, Paris

HOUSES OF ETERNITY

Palmyrene sculpture takes this stylistic evolution to its highest point. In the hypogea, under-

© Charles Lénars, Paris

Veiled women, detail from a relief in the shrine of Bel (1st century A.D.).

▶ The body, which is the centrepiece of classical statuary, disappears stiffly behind the drapery of costumes. The rules of anatomy are abolished. The figures are squat and impassive, the forms devoid of substance. In these hieratic carvings the folds of garments form regular patterns in a blend of Greek and Oriental styles. The composition is harmoniously structured, but all sense of movement is frozen. Lively scenes are rare. This is static, not dramatic, art. Domestic scenes are shown on panels above sarcophagi. But rather than lively Hellenistic banquets these are group portraits where figures rub shoulders yet remain solitary. The standing figures rise like ornamental columns. Being is consummated in the inwardness of contemplation.

The religious reliefs are similar to the funerary statues. Immobile, alone or aligned as if on parade, numerous haloed divinities accompanied by their symbols are shown standing, seated, in chariots, and sometimes riding horses or camels in the sanctuaries of Palmyra. Like the portraits of the dead, these figures are depicted frontally, their gaze fixed and immutable. Often wearing Roman military uniform, they herald the future warrior saints of Christian iconography. In some cases the inscription giving their names amounts to no more than an anonymous adjective: *one*, *unique*, *merciful*. In one corner a mortal is depicted beside the god. He is the donor, who is piously offering incense on a fiery altar, in a symbolic gesture caught by the artist who made these religious reliefs.

"And you, streets of Palmyra/ Forests of columns in the immensity of the desert/What has become of you?" exclaimed Hölderlin. At the crossroads of Syria and Mesopotamia, on the boundary of the nomadic and sedentary worlds, the great ruined city has left these eternal faces as its heritage. ■

Milestones in a long history

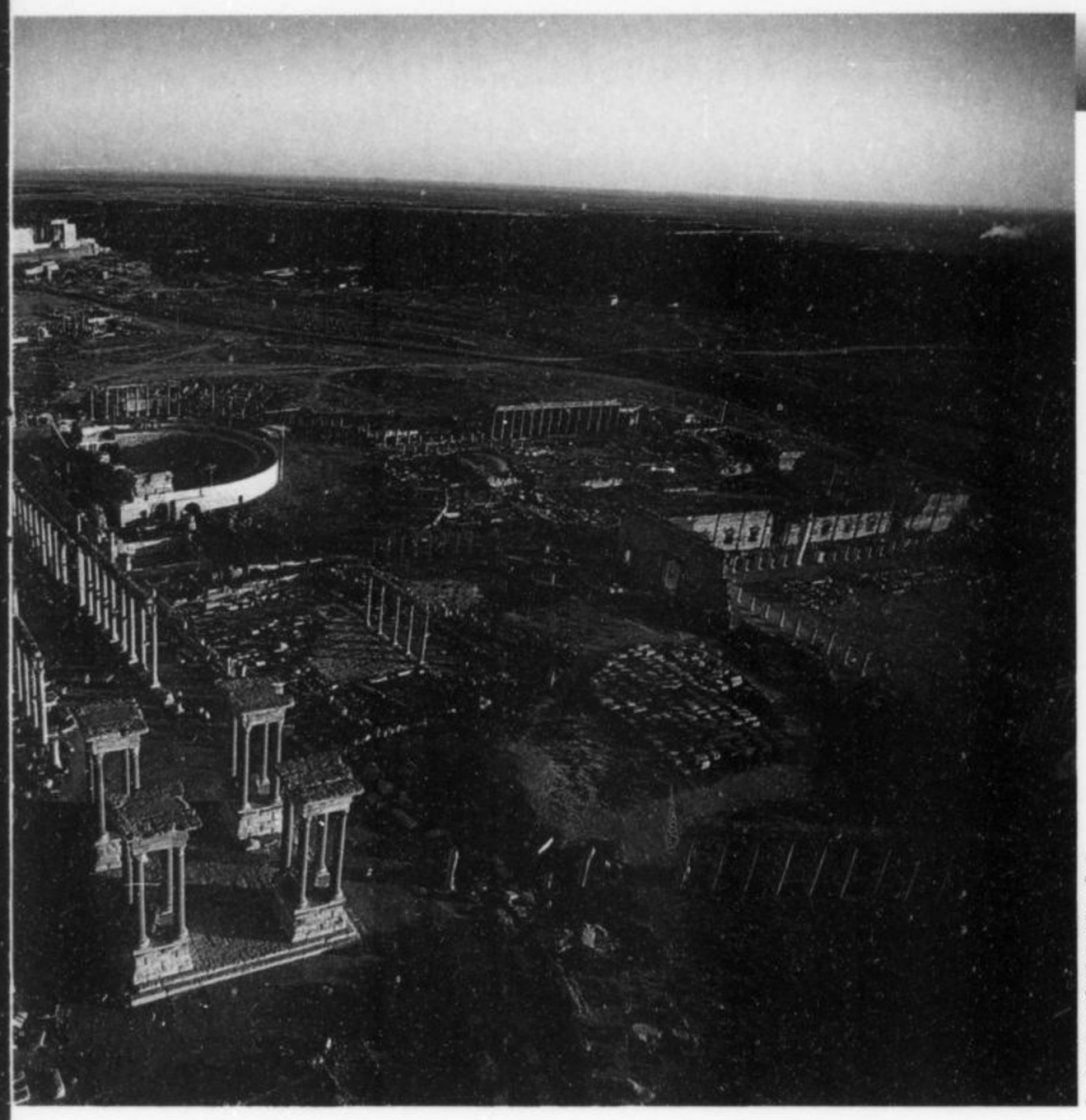
1980: The archaeological site of Palmyra is placed on UNESCO's World Heritage List.

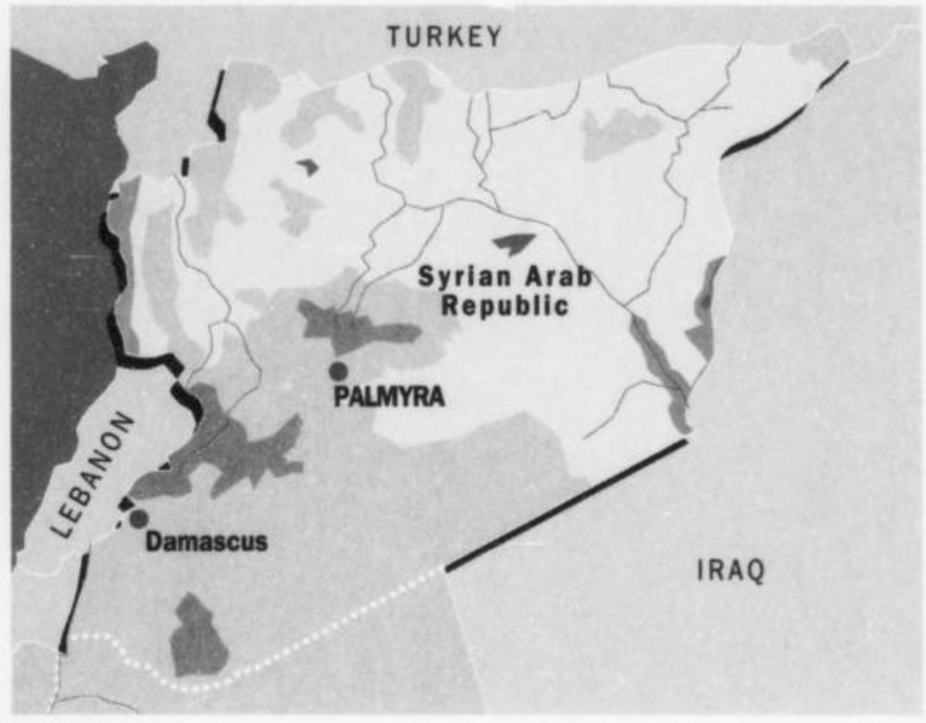
LOCATION:

- Homs province, Syrian Arab Republic 215 km northeast of Damascus.
- The oasis city of Palmyra is bounded on the west and north by hills, and opens onto the desert to the south and east.
- The ancient city stretches out to the northwest; the modern city occupies an arid plateau northeast of the oasis.

HISTORY:

- The oldest tools found at Palmyra date back some 75,000 years.
- Beginning of the second millennium B.C.: first known mention of Tadmor, the original name of Palmyra, still used in Arabic.
- 3rd century B.C.: Palmyra and its territory constitute an Arab principality.
- 1st century B.C.: The city is under Roman tutelage.
- Around 129: The Emperor Hadrian makes Palmyra a "free city".
- 2nd century: Palmyra's golden age. The city's trading links stretch as far as India and China in the east, and to Italy in the west.
- Mid-third century: The situation of the Roman empire deteriorates; Palmyra enjoys a certain independence; Odainat, member of a family of Arab stock, ennobled by Septimius Severus, becomes "Imperator", and is thereby invested with authority in this part of the empire. He proclaims himself King of Kings.
- 268: On the death of Odainat, his son and heir, Wahballat, is too young to govern. Wahballat's mother, Zenobia, exercises power with the title of most illustrious queen. She invades Egypt.
- 270: The army of Palmyra occupies Antioch, capital of Syria.
- 272: Roman troops led by Aurelian enter Syria. Zenobia defends the Syrian capital. The queen breaks with Rome and proclaims herself "Augusta". In August, Palmyra capitulates. Aurelian establishes a garrison there and leaves the city.
- Spring 273: Fresh outbreak of revolt at Palmyra. The garrison is massacred. Aurelian returns in haste and sacks the city. Zenobia and her son are taken to Rome as captives. Palmyra never recovers from this defeat.
- Late 3rd century: Diocletian makes Palmyra part of the eastern *limes*, the network of routes and military posts protecting the empire against the Persians.
- Around 400, during the reign of Arcadius, Palmyra recovers some of its importance.
- 6th century: The Ghassanid Arab dynasty, allied to the Byzantines, dominates the Syrian desert. The emperor Justinian takes a keen interest in Palmyra, renovates it, surrounds it with fortifications, provides it with water, and instals a garrison.
- 634: Khaled ibn al-Walid, one of the generals of the first caliph, Abu Bakr, takes Palmyra, which again becomes Tadmor. During the first centuries of Islam the city gradually falls into oblivion.
- 12th century: A new period of prosperity begins under governor Yusuf ibn Fairüz. Major renovation work.
- 1264: Homs and Palmyra fall under the sway of the Mamluk sultan Baybars.
- 1401: Tamerlane sends troops which sack the city.
- 16th-19th centuries: Under Ottoman domination, the city's decline accelerates. Palmyra is reduced to a village, at the mercy of nomad tribes.
- 17th century: European travellers visit the ruins of Palmyra and make enthusiastic descriptions of them.
- 18th century: The English explorers James Dawkins and Robert Wood, in 1751, and the French philosopher Volney, in 1787, reveal to the world the splendour of the forgotten site. ■





Frank Lechenet © Hémisphères, Paris

The central section of Palmyra's main thoroughfare. Some 1,200 metres long, it crosses the administrative district of the ancient Roman city from east to west. Archaeologists have named it the Grand Colonnade because it was lined with porticoes. The Temple of Bel can be seen in the distance. The amphitheatre (centre) is one of the largest in the Middle East. At far right is the agora or forum (partly visible). In foreground is a tetrapylon, an edifice with four portals marking an intersection of two thoroughfares.

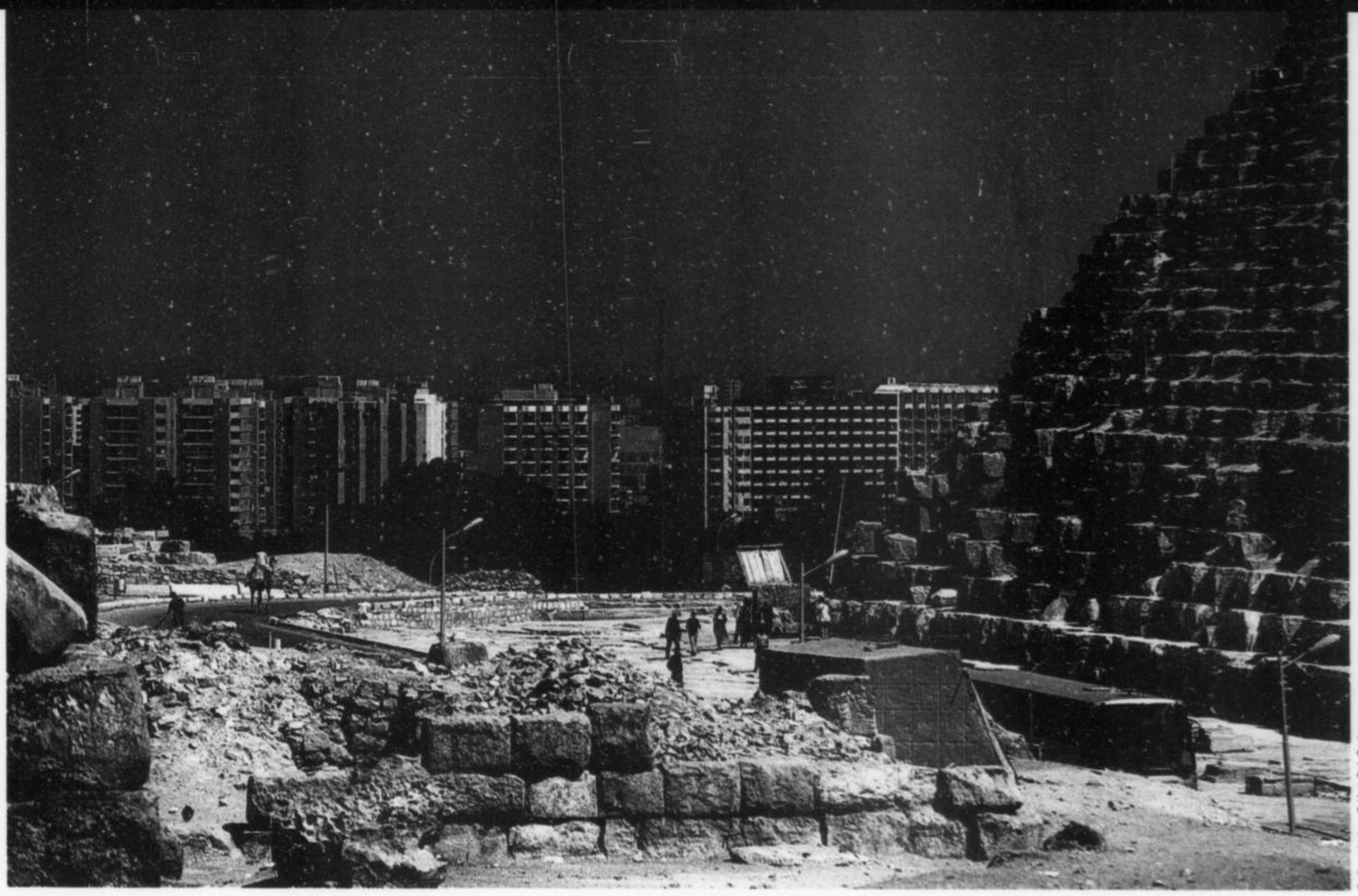
ground burial vaults known as "houses of eternity" are a pleiad of faces carved in rock. On each tomb is a stele depicting the deceased full-length or as a bust. In accordance with the convention of frontality, the figures face out to us, almost always in high or low relief (sculpture in the round is very rare in Palmyrene art). Their idealized and youthful faces fit into a conventional mould and all possess similar features. Men, women and children are depicted as types. Veils and curls of hair frame oval faces. The features are simplified; movement is restrained; expression is concentrated.

Contemplation is the sole form of action. Two concentric circles (the iris and the pupil) represent the eye. The pupils are frozen between the eyelids. "These enormous eyes, as unreal as the folds of the robe, seem to want to pour forth a torrent of life, and they alone perform the magic task of giving life to a bust which otherwise lacked all semblance of being," wrote the archaeologist Henri Seyrig. "For the Palmyrene sculptor the most interesting aspect of being is its deepest and most permanent content."

The name of the deceased is often preceded by the Aramaean term *nafshâ*, meaning "breath", "soul" or "person". Earthly likenesses have been left behind by these faces which concentrate on immortality. There are no explanatory or descriptive inscriptions. The contemplative gaze of the deceased silently evokes life in the next world. The faces of gods, which also look out at the spectator, have the same spiritual presence. The same face is portrayed time and again. The human becomes divine; the divine human. ▶

A funerary stele depicting a father and son (2nd century A.D.)

Philippe Maillard © Institut du Monde Arabe, Paris



S. Grandadam © Hoa Qui, Paris

Ancient and modern Egypt come face to face

by Samir Gharib

Prestigious archaeological sites threatened by urban encroachment

In the last few years rampant population growth and urban sprawl have combined to pose an increasingly serious threat to Egypt's archaeological monuments and sites. The ugly side-effects of urban development—water, air and noise pollution, constant vibrations and damage to the environment—are well known to all the world's city-dwellers.

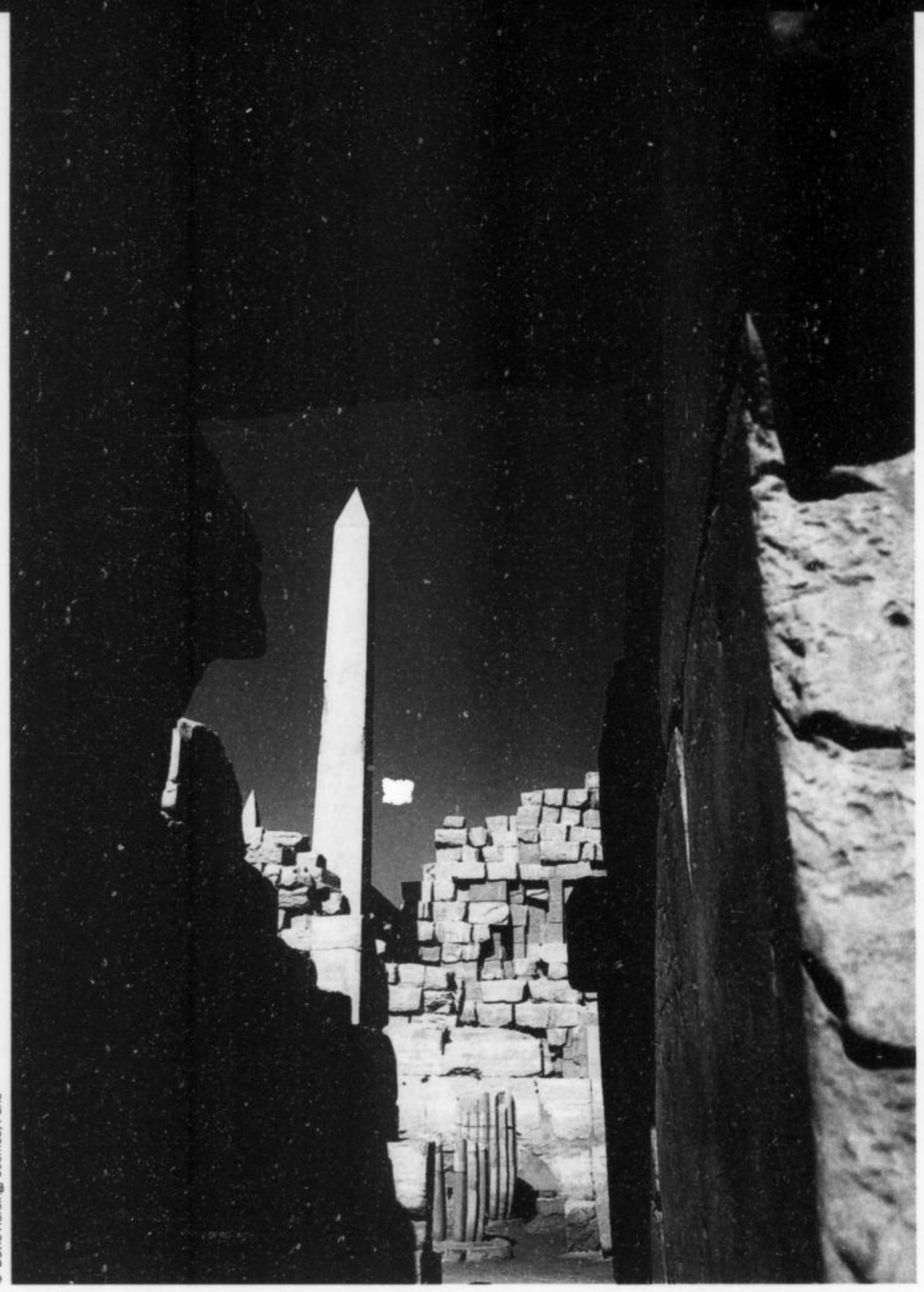
Cairo's older inhabitants remember that only fifty years ago the main road to the pyramids, beginning in Giza Square, ran through fields before reaching the pyramids in the desert. At that time the pyramids could be seen eight kilometres away. Now only a forest of buildings is visible from Giza Square.

Traffic congestion choked the road so severely that another road was built parallel to it, encroaching on farmland which was replaced by more bottlenecks and anarchic ribbon building. There are no car park facilities or garages in these settlements and in some cases there is no running water. In the absence of any kind of town planning, using these two roads can be a hair-raising experience.

To improve the links between Cairo and the new towns around it, the idea was raised of building a huge ring road, 95 kilometres long and 42 metres wide, at a cost of one billion Egyptian pounds. The route of the highway would take it very near the Giza pyramids—an area which has been on UNESCO's World Heritage List since 1979. Nonetheless work on the ring road began in 1986, without prior consultation with the World Heritage Committee and in flagrant violation of Egyptian heritage law, which protects land that might contain historic monuments.

The alarm was sounded in 1994 by the British daily *The Independent*, which drew attention to the risks posed by the road to any monuments that might be buried in an area where no archaeological research had yet been done. As a result of the debate triggered by the press and subsequent ▶

Above, the pyramids and the nearby outskirts of Cairo.



© David Harding/Cosmos, Paris

An obelisk at Luxor.

▶ UNESCO intervention, work was suspended until the completion of a study by an expert committee.

This was not the first round in the fight to preserve the plateau of the Pyramids. In the late 1980s UNESCO sent an expert committee to draw up a project to protect the area, including restoration of the Sphinx and construction of a wall between the archaeological site and the nearby villages of Nazlet Essallab and Kafr Elgabal, which had been joined together by urban growth. The project was abandoned, however, in face of a storm of protest from local interest groups.

THE THREAT TO LUXOR

The pyramids are not the only pharaonic remains harmed by urbanization. Luxor, one of the world's most prestigious historic cities, is also threatened. The site includes the temple of Karnak, the temple of Luxor itself and the Road of the Rams that joins them on the east bank of the Nile, and on the west bank the Valley of the Queens, with the temple of Hatshepsut and the tomb of Nefertiti, and the Valley of the Kings.

Until recently, pedestrians had to take a ferry to cross the river and motor traffic had to make a detour through the distant town of Esna where a bridge spans the Nile. The idea of building a bridge at Luxor was first raised in 1972 and was adopted in 1982. The chosen site was located north of the town, seven kilometres from the Valley of the Kings.

Supporters of the project pointed to the many services the bridge would perform for the community and especially its role in encouraging industrial development in the nearby town of Armante, the centre of the region's sugar industry, by making road haulage possible for the enormous output of the sugar cane fields. The bridge would also reduce the distance between Aswan and Cairo by almost 100 kilometres.

The project was decreed to be in the public interest in 1990, and work began. Five years and 25 million Egyptian pounds later, with the bridge nearly complete, came a bombshell. It was revealed in the press that the bridge's existence might destroy all the archaeological remains on the west bank. Egyptian artists and scientists joined forces and called for the work to be halted.

The pharaohs and their builders chose the site of their final resting place with very great care. The tombs are on high, dry ground, out of reach of the floodwaters of the Nile in an area composed of two overlaid geological strata, a limestone layer containing the tombs, and a layer of clay which retains rainwater and atmospheric humidity in its cracks. Inside the tombs, broad pillars afford protection against earthquakes. By saturating the lower clay layers with water, construction of the bridge exposed them to the danger of slippage, causing movement of the upper limestone layers and the collapse of the temples.

Other arguments drew attention to the risk that this historic site, whose beauty and grandiose solitude attract tourists, would be disfigured by commerce and building which would ultimately discourage tourism. But it is too late; the bridge has been built.

Strict laws now forbid the encroachment of urban settlements onto farmland and building on the west bank of the Nile. The protected area around monuments has even been extended. But will these measures be enough to prevent urban expansion so uncontrolled that it indiscriminately destroys everything in its path, whether it is cropland or archaeological heritage? ■

interview

Viviane Forrester

We are witnessing a transformation of society and civilization

French writer Viviane Forrester is a novelist, literary critic and the author of an award-winning biography of Van Gogh. Her most recent book is *L'Horreur Economique* (1996), an examination of the tyranny of economics in the modern world which has become a best-seller in France. Forcefully written and well documented, it paints the picture of a society in which jobs are disappearing, depriving very large numbers of people of the opportunity to earn a living, and denounces the way in which this situation is being exploited. The book is currently being translated in some twenty countries. Here Viviane Forrester talks to Edgar Reichmann.

John Foley/Opale © Librairie Arthème Fayard, Paris

■ **You are a novelist and you have a special interest in English literature, notably the Bloomsbury group. How did you come to write a book about economics?**

Viviane Forrester: I have never compartmentalized creative activity. All thinking, to my mind, is political, even when it does not claim to be. I think that each of us, whatever our walk of life, should feel concerned about the present state of the world, which is entirely governed by economics. Isn't this situation inextricably tied up with politics, in the highest sense of the term? If Shakespeare were to come back to life today, I think he would be fascinated by the tragic interplay of powerful economic forces which are stealthily transforming the lives and destinies of the citizens—or rather the populations—of all countries.

■ **You pillory the optimistic belief that the current crisis—with its corollary of long-term unemployment—is temporary. Do you think that this crisis reflects a major shift?**

V.F.: I think it does. To my mind we are witnessing a profound change, a transformation of society and civilization, and we are finding it very hard to accept. How can we say good-bye to a society that was based on stable jobs that provided a safety net and the basics of a decent existence? Job security is on the way out. In my book I concentrate on the ways in which this situation is being exploited. For the first time in history, the vast majority of human beings are no longer indispensable to the small number of those who run the world economy. The economy is increasingly wrapped up in pure speculation. The working masses and their cost are becoming superfluous. In other words, there is something worse than actually being exploited—and that is no longer to be even worth exploiting!

It is true that this state of affairs is not being concealed, but there is a tendency to avoid talking ▶

What we are seeing today is economic globalization and the globalization of poverty.

about it clearly. In democratic societies, at any rate, you don't tell people that they are regarded as superfluous. Under totalitarianism there might be an even worse danger than joblessness and poverty. Once salaried work has disappeared, why should a totalitarian regime not simply eliminate those forces that have become useless?

■ **What can be done to avoid this terrible conclusion?**

V.F.: In democratic countries there is an urgent need for vigilance. It is often claimed that the industrial age, when a regular wage provided the means of subsistence, can somehow be patched up. But those days are over. Wage-earning is disappearing and the panoply of temporary doles and allowances designed to replace it is shrinking, something that is nothing less than criminal. The managers of the economic machine exploit this situation. Full employment is a thing of the past, but we still use criteria that were current in the nineteenth century, or twenty or thirty years ago, when it still existed. Among other things, this encourages many unemployed people to feel ashamed of themselves. This shame has always been absurd but it is even more so today.

It goes hand in hand with the fear felt by the privileged who still have a paid job and are afraid of losing it. I maintain that this shame and this fear ought to be quoted on the stock exchange, because they are major inputs in profit. Once upon a time people pilloried the alienation caused by work. Today falling labour costs contribute to the profits of big companies, whose favourite management tool is sacking workers; when they do this, their stock market value soars.

■ **But isn't it possible that the accumulation of banking and financial wealth, and the widespread long-term unemployment you talk about may lead to a so-called leisure society? This was supposed to happen in the now-defunct Marxist utopia—everyone would be rewarded according to their needs and not only for the work which brought them a living.**

V.F.: We lived for decades with the utopia you allude to. What we are seeing today is economic globalization and the globalization of poverty. We are living with this globalization and with sophisticated technologies that were unimaginable not so long ago. Their effects should be beneficial for all of us. In point of fact they are dreadful. It is essential to find a different way of living, without necessarily trying to create an ideal one. I do not think that the planet can become a paradise, but I would like it at least to be a home for decent societies in which everyone is treated with dignity and people respect their neighbours.

■ **You talk in your book of "virtual markets". What do you mean by that?**

V.F.: I refer to a current form of business transaction in which people deal in what does not exist. These are transactions which do not involve real assets, nor even symbols for such assets, but where people buy and sell, for example, the risks involved in contracts which have not yet been signed or are still being negotiated; where debts are sold and are later bought and sold on again and again; where deals are made, involving virtual values which are already guaranteed: they in turn give rise to other contracts based on the negotiation of the previous ones! In this market in risks and debts people speculate on speculation. It is an unreal market, based on illusions. While I was writing my chapter on this virtual economy I read through what I had written and said to myself that it simply couldn't be true, that I was talking nonsense. The same evening, former German Chancellor Helmut Schmidt appeared on French television and confirmed that a hundred times more deals were made on these surrealistic markets than on the others. This is very serious because it is leading us to an autonomous economy, incapable of creating real jobs. One person with a fax and a computer can make this kind of deal, in which no investment is required and people make bets, like in a casino or at the races, on a virtual market which has nothing to do with the labour market.

■ **But your book also has a lot to say about wealth creation and the forces behind it.**

Virtual markets are leading us to an economy incapable of creating real jobs.

V.F.: Today we hear a lot about "wealth creation". In the past it was simply known as profit. Today people talk about this wealth as if it will automatically go straight to the community and create jobs, yet at the same time we see highly profitable businesses cutting down heavily on their workforce. When people talk about society's "movers and shakers", they aren't talking about the bulk of their country's population but about business leaders who relocate at the drop of a hat. Politicians make jobs their priority, but the Stock Exchange is delighted whenever a big industrial complex fires workers and gets worried whenever there's the slightest improvement in the unemployment figures. I wanted to draw people's attention to this paradox. A company's stock market quotation depends largely on labour costs, and profit is generated in the last analysis by reducing the numbers of those who have a job.

■ **What impact is this economic tyranny having on culture, teaching, education and young people?**

V.F.: The present situation raises a vital question for the future of the people of our planet, above all for young people and their future. Today the great thing is to be "profitable", not "useful". This raises a very serious question. Should people be profitable in order to "deserve" the right to live? The commonsense answer is that it is a good thing to be useful to society. But we are preventing people from being useful, we are squandering the energies of young people by regarding profitability as the be-all and end-all. Most countries have lost their sense of priorities. There is a greater and greater need for teachers and medical staff, but governments are increasingly aggressive towards them. These are the professions where posts are abolished and funding is cut. Yet they are indispensable to the welfare and future of humanity. This confusion between "usefulness" and "profitability" is disastrous for the future of the planet.

Young people live in a society which still regards salaried employment as the only acceptable, honest and lawful way of life, but most of them are deprived of the opportunity to achieve this. In deprived inner city areas this is a major problem. At the same time I often meet young people with armfuls of degrees who are out of work. What inexcusable waste! For generations study was young people's initiation into social life. I admire young people today because they go on with their studies fully aware that they are running the risk of rejection by society.

Twenty-odd years ago, during a writers' forum in Austria, there was great amusement when one of the speakers asked the audience (who came from many countries) whether they had ever heard of a French poet named Mallarmé. A later speaker was indignant about our laughter. He mentioned a number of brand names, none of which we had ever heard of. They were makes of rifles and machine guns. He was from a country of the South, then plunged in civil war, where 90 per cent of the people knew the names of these weapons but no one would ever have heard of Mallarmé. I heard myself saying that if the users of these machine guns, African peasant farmers, the young people of Latin America and most of the unqualified workers of Europe have never heard of Mallarmé, it's not all their fault: they don't have the opportunity. Some have machine guns; others have the time to read Mallarmé! That's another crime! The works of writers such as Mallarmé, Senghor, Omar Khayam, Kafka, Proust or Virginia Woolf should not be the privilege of an elite. They break down the walls that imprison us. Understanding the work of these creative artists makes us freer, less blind and less deaf. Their work helps to broaden our horizons, sharpen our thinking and open our minds, the only way to a critical, clear-thinking outlook and to effective action. Then someone at the meeting stood up and shouted: "Mallarmé is a machine gun!"

Should people be profitable in order to "deserve" the right to live?

■ **Your analysis deals primarily with the situation in the industrialized countries. What about the developing world?**

V.F.: This is something about which the West ought to feel heartily ashamed! It behaved rapaciously in the countries it colonized, and today it closes its frontiers to their people who come looking for menial jobs in order to survive, under the pretext that they would make the unemployment figures worse. Even if there was an iota of truth in this allegation—in fact there is none—this kind of immigration can never be as predatory as the former colonial powers were, and sometimes still are, in continents ravaged by ▸

Young people are being robbed of the chance of salaried employment.

famine, pandemics and civil war. Those who try, in some countries of the North, to convince public opinion that immigration causes unemployment, divert attention from the truth. In the North it is the relocation of certain industries and the flight of capital that are increasingly causing and perpetuating unemployment.

Only twenty or thirty years ago, there was still reason to hope that the relative prosperity of the North would spread all over the world. Today we are seeing the globalization of poverty. Businesses based in the North that set up in the so-called "developing" countries, do not create jobs for the people of those countries but generally make them work without any kind of social security protection, in medieval conditions. The reason is that the workforce—underpaid women and children, as well as prisoners—costs less than automation would cost in the country of origin. This is colonization in another, equally heinous, form.

■ **In spite of your pessimism, do you see any solutions on the horizon different from those that led to totalitarianism?**

V.F.: I am not pessimistic, far from it. The pessimists are those who say there is no alternative to the present situation, that we have no choice. My book is an attempt to describe what is going on. It's true that the situation is dramatic. All the same I am, like many other people, the citizen of a country whose democratic regime makes it possible to reflect and freely resist the growing pressure that the economic factor is exerting on our lives. By endlessly going on about the dictatorial system that prevailed until recently in part of Europe and elsewhere, some people want us to think that the terrible failure of the U.S.S.R. justifies the economic horrors facing us. This is a kind of blackmail.

I would like there to be checks and balances, alternative thinking, conflicts of ideas and interests. Not violent conflict, of course, but we should wake up and stop being petrified, prisoners of hackneyed thinking. Already in countries where my book is being translated—especially in the United States, Brazil, Mexico, Lithuania, Poland and in others such as the Republic of Korea—it is causing something of a stir even before publication. Articles are appearing, people are asking me questions, friends of mine who read French are asking for copies.

I am neither against the globalization of exchanges, nor the emergence of new technologies. Such an attitude would be absurd. But I am against their being taken over by a tiny minority of economic power centres, often in private hands, whereas entire populations are excluded from social progress. I am against the globalization of rejection and poverty and for the globalization of well-being. ■

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PAULO FREIRE

(1921-1997)

Paulo Freire has left us, and with his passing something has gone from the world's classrooms; on every continent teachers have felt, perhaps unconsciously, a moment's sadness before returning to their task with renewed force and conviction.

He taught autonomy, hope to the oppressed. He knew, like Bolívar, that education is the key to freedom. Paulo Freire, teacher of liberation, was imprisoned and exiled by those who fear men and women in control of their destiny.

Paulo Freire was driven by the urgency of change: he never forgot that, as Salvador Ortiz-Carboneres has written, "the night is long for those who wait for the light of day."

Technology, yes, but above all, tenderness. Above all, smiles and affection to avoid the cold, demented world of machines. Shaping attitudes, helping people achieve sovereignty over themselves. A critical sovereignty, guided by lodestars that are neither bought nor sold.

A few months ago, I wrote the following lines in his biobibliography: "Paulo Freire's long and brilliant trajectory in the art of teaching has made him a legendary figure. The only pedagogy is that of love—and anxiety. That which leads all human beings, men and women, to assume their responsibilities, to make decisions without outside interference, to walk a tightrope between shade and light, between mist and radiance—wherever freedom is the essence, the culmination and the reason of each life."

One April day in 1995, in a little village in southern Sudan, I dedicated a poem to my friend Paulo, the teacher of teachers: "Surrounded forever/by mangroves/baobabs and acacias/I shall think only of your eyes/eyes of a wounded gazelle/girl of solitude/and distance./I go away/covered with mud and straw,/for your hut/now/occupies/all the spaces/of my house./Our houses overflowing/and yours destitute./I must not forget/that all the rest/ is unimportant./Ah, to remember/Your hut/full of love and smiles!"

The giants of the intellect die but do not disappear. They simply become invisible. Theirs is the most important of all lessons: they set us an example.

FEDERICO MAYOR

Paris, 4 May 1997

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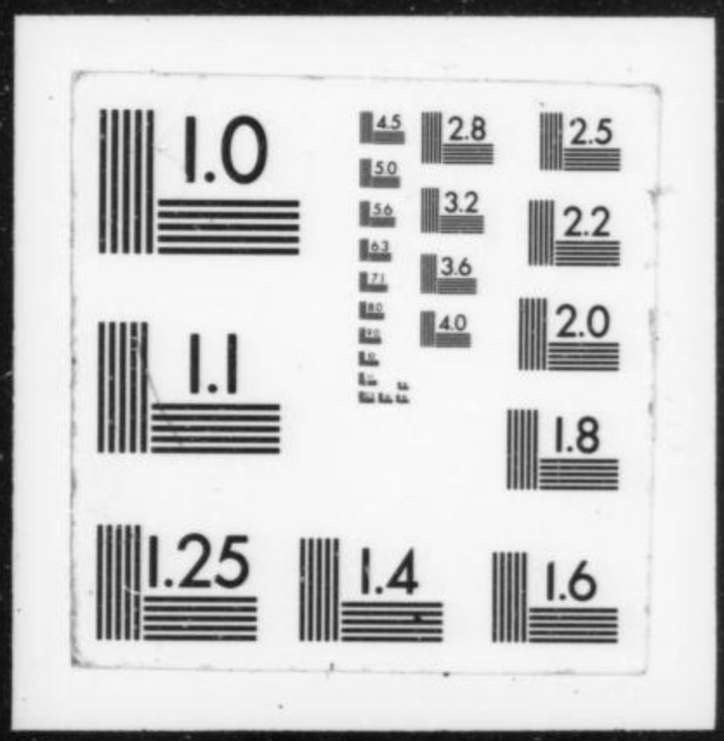
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